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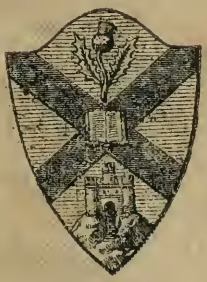

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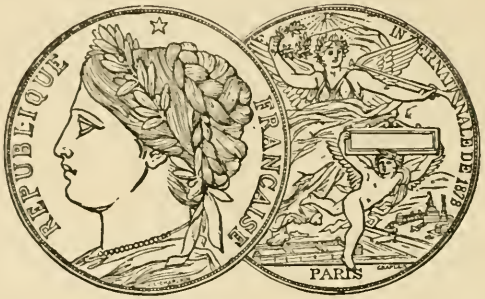

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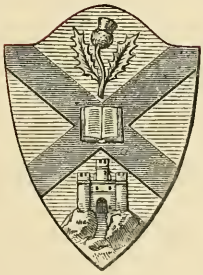

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PREFACE.

THE EDINBURGH UNIVERSITY CALENDAR *is intended to be an Academical Manual for Students, Members of the General Council, and others interested in the University.*

The CALENDAR *is the only authorized Academical Organ for the publication of the Synopses of the Courses delivered in each year by the Professors, the Class Prize Lists, the Regulations and Subjects of Examination for Degrees in Arts, Divinity, Law, Medicine, and Science, the Questions proposed to Candidates for Degrees, the Annual Graduation Lists, and the Bursaries, Scholarships, Fellowships, and other Endowments of the University. It also contains the Regulations for University Local Examinations, for University Certificates in Arts for Women, for the Examination of Candidates for appointments in the Army, and for the Civil Service of India.*

A Statement of the Annual Income and Expenditure of the University is included in it.

The CALENDAR *for the present year contains announcements of the newly founded Vans Dunlop Scholarships and Deeds of other Foundations.*

The CALENDAR *is Published by* JAMES THIN, *Edinburgh, and may be had through any Bookseller. Price* 2*s.* 6*d.; by Post* 3*s.*

The List of Members of the General Council, with their addresses in full, is printed separately, and may be had at the Publisher's. Price 1*s, by post* 1*s.* 2*d.*

UNIVERSITY OF EDINBURGH,
May 1, 1882.

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The Calendar.

1882—MAY, 31 DAYS.

1	M	
2	Tu	SUMMER SESSION OPENS.
3	W	*Clinical Examinations begin.*
4	Th	
5	Fr	
6	Sa	
7	S	
8	M	
9	Tu	
10	W	
11	Th	Court of Session Sits.
12	Fr	*Law Classes open.*
13	Sa	
14	S	
15	M	
16	Tu	
17	W	
18	Th	
19	Fr	
20	Sa	
21	S	
22	M	
23	Tu	
24	W	Queen born, 1819.
25	Th	General Assembly Meets.
26	Fr	*Meeting of Senatus Academicus.*
27	Sa	
28	S	
29	M	
30	Tu	
31	W	

JUNE, 30 DAYS.

1	Th	
2	Fr	*Final Prof. Exam.—Surg.* 11 *o'clock*; *Midwif.* 1.30.
3	Sa	*Do. do.—Prac. of Phys.* 11; *Legal Med.* 1.30.
4	S	
5	M	*Final Med. Oral Exam. commence.*
6	Tu	
7	W	
8	Th	
9	Fr	
10	Sa	
11	S	
12	M	
13	Tu	*University Local Exam. commence at* 9 *o'clock a.m.*
14	W	
15	Th	
16	Fr	
17	Sa	
18	S	
19	M	
20	Tu	
21	W	*Last day for Names for Degrees in Law to be intimated.*
22	Th	
23	Fr	*Meeting of Senatus Academicus.*
24	Sa	Midsummer.
25	S	
26	M	*Examinations for Degrees in Law commence.*
27	Tu	
28	W	
29	Th	
30	Fr	

JULY, 31 DAYS.

1	Sa	
2	S	
3	M	
4	Tu	
5	W	
6	Th	
7	Fr	*Last day for Names for Second Prof. Exam. to be given in, and Fees paid.*
8	Sa	
9	S	
10	M	*Meeting of University Court.*
11	Tu	
12	W	
13	Th	
14	Fr	*2d Prof. Med. Exam.—Anat.*, 11 *o'clock; Phys.*, 1.30. *Law Classes rise.*
15	Sa	*Do. do. Materia Medica*, 11; *Pathology*, 1.30.
16	S	
17	M	*Second Professional Oral Examinations commence.*
18	Tu	
19	W	
20	Th	Court of Session rises.
21	Fr	*Tutorial Classes in Arts rise.*
22	Sa	
23	S	
24	M	
25	Tu	
26	W	*Classes in Medicine rise.* SUMMER SESSION ENDS.
27	Th	
28	Fr	*Meeting of Senatus Academicus.*
29	Sa	
30	S	
31	M	

AUGUST, 31 DAYS.

1	Tu	*Graduation Ceremonial in Medicine and Law.*
2	W	
3	Th	
4	Fr	
5	Sa	
6	S	
7	M	*University Library closed.*
8	Tu	
9	W	
10	Th	
11	Fr	
12	Sa	
13	S	
14	M	
15	Tu	
16	W	
17	Th	
18	Fr	
19	Sa	
20	S	
21	M	
22	Tu	
23	W	
24	Th	
25	Fr	
26	Sa	
27	S	
28	M	
29	Tu	
30	W	
31	Th	

SEPTEMBER, 30 DAYS.

1	Fr	*Names for Ferguson Scholarships to be announced before this day.*
2	Sa	
3	S	
4	M	
5	Tu	
6	W	*University Library opened.*
7	Th	
8	Fr	
9	Sa	
10	S	
11	M	
12	Tu	
13	W	
14	Th	
15	Fr	
16	Sa	
17	S	
18	M	
19	Tu	
20	W	
21	Th	
22	Fr	
23	Sa	
24	S	
25	M	*Last day for Names for Prel. Exam. in Med., and in Science to be given in, and Fees paid.*
26	Tu	
27	W	
28	Th	
29	Fr	
30	Sa	

OCTOBER, 31 DAYS.

1	S	
2	M	*Matriculation commences. Last day for Names to be given in, and Fees paid for First Prof. Exam., and for Degrees in Science.*
3	Tu	*Prelim. Exam. in Arts for Med., and Phys., and Nat. Sc. Degrees—Arith.*, 9 *o'clock; Math.*, 11.30; *Higher Math.*, 2. *Ferguson Scholarship Examination.*
4	W	*Do., Do., Eng.*, 9; *Nat. Phil.*, 11.30; *Mech.* 2.
5	Th	*Do., Do, Lat.*, 9; *Logic*, 11.30; *Mor. Phil.*, 2.
6	Fr	*Do., Do., Greek*, 9; *French*, 11.30; *German*, 2.
7	Sa	
8	S	
9	M	*Annual Inspection of Univ. Library.*
10	Tu	
11	W	
12	Th	*First Prof. Exam. and First B.Sc.* (*in Phys. and Nat. Science, and Engineering*), Chem. 11 and 2 o'clk.; Nat. Hist. 2; *Second B.Sc. in Phys. Science*, Chem. 11 and 2; Physiology, 11; Zoology, 2; Engineering, 11 and 2.
13	Fr	*Do., and First B.Sc.*, Botany, 11; *Second B.Sc. Nat. Sc.*, Botany, 11; Geology, 2; *Do., in Engineering*, Engineering, 11 and 2.
14	Sa	*Do., Practical Chemistry for Med. and Science Stud., at* 10 A.M.
15	S	
16	M.	*Meeting of Univer. Court for appointment of Assistant Registrars, and approval of Class Assistants. First Prof. Exam. Oral Exam. commence.*

OCTOBER—*continued.*

17	Tu	*Pass Examinations for M.A., commence 1st day,* Latin, 9 and 12; Mathematics, 2.30. *First B.Sc. Exam., Phys. and Nat. Sciences and Engineering,* Chem., 10; Mathematics, 2.30. Court of Session sits.
18	W	*Pass Exams. for M.A.—2d day,* Mathematics, 9; Greek, 1. *1st and 2d B.Sc. Exam., Phys. and Nat. Sciences and Engineering,* Mathem., 9.
19	Th	*Pass Exam. for M.A.—3d day,* Log. & Met., 9; Nat. Phil., 1. *1st and 2d B.Sc. Exam., Phys. and Nat. Sciences and Engin.,* Nat. Phil., 1.
20	Fr	*Pass Examinations for M.A.—4th day,* Moral Phil., 9; Rhetoric, 1.
21	Sa	*ENTRANCE EXAMINATIONS for Curriculum of Three Sessions—First Day of Exam. for BURSARIES in Arts.*
22	S	
23	M	*Meeting of Senatus Academicus. Entrance Exam. in Mathematics. 2d day of Exam. for Bursaries in Arts.*
24	Tu	WINTER SESSION OPENS.
25	W	*Examination for B.D., 1st day.*
26	Th	Sacramental Fast-Day.
27	Fr	*Examination for B.D., 2d day. Meeting of General Council at 1 o'clock.*
28	Sa	*Examination for B.D., 3d day.*
29	S	Communion Sunday in Edinburgh and Leith.
30	M	
31	Tu	

NOVEMBER, 30 DAYS.

1	W	*Divinity Classes open.*
2	Th	
3	Fr	
4	Sa	
5	S	
6	M	
7	Tu	
8	W	
9	Th	
10	Fr	
11	Sa	Martinmas term.
12	S	
13	M	
14	Tu	
15	W	
16	Th	
17	Fr	
18	Sa	
19	S	
20	M	
21	T	
22	W	
23	Th	
24	Fr	
25	Sa	*Meeting of Senatus Academicus.*
26	S	
27	M	
28	Tu	
29	W	
30	Th	*Registration of Members of Gen. Council for* 1883 *ends.*

DECEMBER, 31 DAYS.

1	Fr	
2	Sa	
3	S	
4	M	
5	Tu	
6	W	
7	Th	
8	Fr	
9	Sa	
10	S	
11	M	
12	Tu	
13	W	
14	Th	
15	Fr	
16	Sa	*Meeting of Senatus Academicus.* *Examinations for Fellowship and Scholarships in Arts commence.*
17	S	
18	M	
19	Tu	
20	W	
21	Th	*Last day on which the Classes meet before the Christmas Holidays.*
22	Fr	
23	Sa	
24	S	
25	M	CHRISTMAS DAY.
26	Tu	
27	W	
28	Th	
29	Fr	
30	Sa	
31	S	

1883—JANUARY, 31 DAYS.

1	M	
2	Tu	
3	W	*First day on which the Classes meet after the Christmas Holidays.*
4	Th	
5	Fr	
6	Sa	
7	S	
8	M	
9	Tu	
10	W	
11	Th	
12	Fr	
13	Sa	
14	S	
15	M	
16	Tu	
17	W	
18	Th	
19	Fr	
20	Sa	
21	S	
22	M	*Meeting of University Court. Registration Appeals. Appointment of Examiners in Medicine.*
23	Tu	
24	W	
25	Th	
26	Fr	
27	Sa	*Meeting of Senatus Academicus.*
28	S	
29	M	
30	Tu	
31	W	

FEBRUARY, 28 DAYS.

1	Th	
2	Fr	
3	Sa	
4	S	
5	M	
6	Tu	
7	W	
8	Th	
9	Fr	
10	Sa	
11	S	
12	M	*Holiday in Faculty of Arts.*
13	Tu	*Reid Commemoration Concert.*
14	W	
15	Th	
16	Fr	
17	Sa	
18	S	
19	M	
20	Tu	
21	W	
22	Th	
23	Fr	
24	Sa	*Meeting of Senatus Academicus.*
25	S	
26	M	
27	Tu	
28	W	

MARCH, 31 DAYS.

1	Th	
2	Fr	
3	Sa	
4	S	
5	M	*Last Day for Names for Prelim. Exam. in Med. and in Science to be given in and Fees paid.*
6	Tu	
7	W	
8	Th	
9	F	
10	Sa	
11	S	
12	M	
13	Tu	*Prelim. Exam. in Arts for Med. and for Phys. and Nat. Science Degrs. Arith., 9 o'clk.; Math. (Euclid and Algebra), 11.30; Higher Math. 2.*
14	W	*Do. English, 9 o'clock; Nat. Phil., 11.30; Mechanics, 2.*
15	Th	*Do. Latin, 9 o'clock; Logic, 11.30; Moral Philosophy, 2.*
16	F	*Do. Greek, 9 o'clock; French, 11.30; German, 2. Classes in Faculty of Law, close.*
17	Sa	
18	S	
19	M	
20	Tu	
21	W	
22	Th	
23	Fr	*Good Friday. Holiday.*
24	Sa	*Last Day for Names for Degrees in Arts to be given in and Fees paid.*
25	S	*EASTER SUNDAY.*
26	M	*Last day for Names for 1st Prof. Exam. and for Degrees in Science to be given in and Fees paid.*
27	Tu	
28	W	
29	Th	
30	Fr	*Classes in Divinity and Medicine close. Last Day for Names for 2d Prof. Exam. to be given in and Fees paid.*
31	Sa	*Meeting of Senatus Academicus.*

APRIL, 30 DAYS.

1	S	
2	M	*First Prof. Exam. and First B.Sc. in Phys. and Nat. Sciences*, Chem., 11-1; Nat. Hist., 2-4; *First B.Sc. in Engineering*, Chem., 11-1; *First B.Sc. in Public Health*, Chem., 11-1; Physics, 2-4; *Second B.Sc. Phys. Sciences*, Chem., 11-1 and 2-4; *Second B.Sc. in Nat. Scien.*, Physiol., 11-1; Zoology, 2-5; *Second B.Sc. Engineering*, Engineering, 11-1 and 2-5.
3	Tu	*First Prof. Exam. and First B.Sc. Phys. and Nat. Sc.*, Botany, 11-1; *First B.Sc. Pub. Health*, San. Law & Vital Stat., 11-1; *Second B.Sc. Nat. Scien.*, Botany, 11-1; *Second B.Sc. Engineering*, Engineering, 11-1 and 2-5. *Exam. in Divinity commence.*
4	W	*Pract. Chem. for Medical and Science Students at* 10 *a.m.*
5	Th	
6	Fr	*Classes in Faculty of Arts close. Second Prof. Med.* —Anat., 11; Physiol., 1.30.
7	Sa	*Second Prof. Med., 2d day—Mat. Med.* 11 *o'clock; Pathol.*, 1.30.
8	S	
9	M	*Meeting of University Court. Pass Examination for M.A., and First B.Sc. commence—1st day*, Latin, 9 and 12; Math., 3. *First B.Sc. Exam. in Phys. and Nat. Sc. and Engineering*, Math., 9-11. *Second B.Sc. Exam. in* Med. 11-1; Prac. Sanitation, 2-4.
10	Tu	*Pass Exam. for M.A.—2d day*, Math., 9-11; Greek, 1-4. *First B.Sc. Exam. in Phys. and Nat. Sc. and Engineering*, Mathematics, 9-11.
11	W	*Pass Exam. for M.A.—3d day*, Logic and Met., 9-12; Natural Phil., 1-4. *First B.Sc. Exam. in Phys. and Nat. Sc. and Engin.*, Nat. Phil., 1-4.
12	Th	*Pass Examinations for M.A.—4th day*, Moral Phil., 9-12; Rhetoric, 1-4.

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APRIL—*continued.*

13	Fr	*Exam. for M.A. with Honours commence, and for D.Sc. in Philosophy and Philology. 1st day, Latin, 9 and 1; Log. and Met. 9 and 1; Math. 9 and 1. Second B.Sc. Exam. in Phys. and Math. Science, and Engineering.*
14	Sa	*2d day—Latin, 9; Greek, 1; Logic and Met. 9; Moral Phil. 1; Nat. Phil. 9 and 1.*
15	S	
16	M	*3rd day—Moral Phil. 9 and 1; Greek, 9 and 1. Second B.Sc. Exam. in Phys. and Exp. Sc. and Engineering.*
17	Tu	*Meeting of General Council at 1 o'clock.*
18	W	
19	Th	
20	Fr	GRADUATION CEREMONIAL IN ARTS, DIVINITY, LAW, AND SCIENCE.
21	Sa	
22	S	
23	M	
24	Tu	*Last day for names for Final Professional Examination to be given in, and fees paid.*
25	W	
26	Th	Sacramental Fast Day.
27	Fr	
28	Sa	*Theses for M.D. to be given in on or before this day.*
29	S	Communion Sunday.
30	M	

Programme of Classes.

SUMMER SESSION, 1882.

Classes.	Days of Opening, and Hours of Attendance.	Professors.	Class Fee.	
Civil Law	May 12, 9 o'clock	Prof. Muirhead, ...	5	5*
Scots Law	May 12, 9 o'clock	Prof. Macpherson,	5	5*
History.....	May 16, 4 o'clock	Prof. Kirkpatrick,	3	3
Sanskrit (Senior)	May 4, 3 o'clock.	Prof. Eggeling.....	...	
Medical Jurisprudence	May 2, 11 o'clock	Prof. Maclagan, ...	£4	4
Botany.....	May 2, 8 o'clock.		4	4†
Field Demonstrations Vegetable Histology on *Saturdays*, ...	May 2, 9 o'clock.	Prof. Dickson, .	2	2
Natural History.....	May 2, 2 o'clock	Prof. Cossar Ewart.	4	4
Practical Natural Hist.	May 3, 3 o'cl.		2	2
Prac. Materia Medica (incl. Pharmacy).....	May 2, 10 o'clk.	Prof. T. R. Fraser,	3	3
Chemistry (Organic), Advanced Class — (*Tues., Wed., & Thur.*)	May 4, 1 o'clk.	Prof. Crum Brown,	2	2
Do. Practical	May 2, 10 & 11 o'cl.		3	3
Anatom. Demonstra.*	May 3, 11 o'clock	Prof. Turner &	2	2
Practical Anatomy* ...	May 2, *daily*	Demonstrator,		
Clinical Surgery— (*Mon. & Thurs.*)....	May 4, 12 o'clk.	Prof. Annandale,	3	3
Clinical Medicine— (*Tues. & Fri.*).....	May 2, 12 to 2	Profs. Maclagan, Grainger Stewart, T. R. Fraser, and Greenfield, and Prof. Simpson on Dis. of Women, ...	3	3
Obstetrical and Gynecol. Operations*— (*Tues. & Fri.*)	May 2, 10 o'clk.	Prof. Simpson, ...	3	3
Practical Physiology, including Histology....	May 2, 3 o'clk.	Prof. Rutherford,	3	3
Operative Surgery and Surgical Appliances* (*Mon. Tu. Th. & Fri.*)	May 2, 4 o'clk.	Prof. Spence, ...	3	3
Practical Morbid Anatomy and Pathology*	May 2, 11 o'clk.	Prof. Greenfield,	3	3
Mental Diseases, with Prac. Instruction at Morning. Asylum — (*Mon. Wed. & Frid.*)	May 3, 3 o'clk	Dr Clouston, Lecturer.	3	3
Royal Infirmary.....	Daily at Noon.....			

* University New Buildings.

† Besides Garden Fee of 5s.

SUMMER TUTORIAL CLASSES, 1882.

Classes.	Hours.	Professors' Assistants.	Class Fee.
Senior Humanity.....	9–10	William Peterson, M.A.	£2 2
Junior Humanity.....	10–11		
*Advanced Humanity..			
Junior Greek.....	9–10	George B. Gardiner, M.A.	2 2
Senior Greek.....	10–11		
Junior Mathematics...	11–12	William Thomson, M.A., B.Sc.	2 2
Senior Mathematics...	12–1		
Advanced Mathem....	9.30–10.30		
Natural Philosophy...	11–12	Cargill G. Knott, Sc.D.	2 2

The Junior Classes of Latin and Greek are intended to meet the wants of the less advanced Students. Part of the work prescribed for the Departmental Examination in Classical Literature is read, and ample opportunity is afforded for the practice of Prose Composition.

In the Senior Classes Students are specially prepared for the Departmental Examination in Classics; and exercises in Prose Composition are regularly prescribed.

In the Junior Mathematical Class the Lectures will embrace the subjects necessary for the Junior Winter Course, *i.e.*, Plane Geometry, and the simpler portions of the Elements of Algebra.

The Lectures in the Senior Class, being specially designed for those who have attended the Junior Winter Course, will be confined to Trigonometry, Algebra, and Conic Sections.

These Classes afford to Students an opportunity of preparing for the M.A. Pass, 1st B.Sc., and Preliminary Medical and Science Examinations in the Department of Mathematics.

In the Advanced Mathematical Class, which has been instituted for the benefit of those preparing to join the Advanced Winter Course, Lectures will be given on Determinants, Theory of Equations, Co-ordinate Geometry, Modern Geometry, and the Elements of the Differential and Integral Calculus.

Note.—The Advanced Mathematical Class will not meet unless a sufficient number of Students come forward.

The Course of Lectures on Natural Philosophy will be a systematic treatment of the principles of Energy, and will be specially adapted to the wants of Students preparing for the first B.Sc. or Departmental M.A. Examination in Physics, and for the Natural Philosophy and Mechanics Preliminary Examinations in Medicine and Science.

The Classes will commence on the 3rd of May, and close on the 15th of July.

WINTER SESSION, 1882-83.

FACULTY OF ARTS, OR LITERATURE & PHILOSOPHY.

Dean—Professor CAMPBELL FRASER, LL.D.

Classes.	Days of Opening and Hours of Attendance.	Professors.	Class Fee.
First Humanity	Oct. 24, 12 & 2 o'cl.	Prof. Sellar	£3 3
Second Humanity ...	Oct. 24, 10 ,,	.....	3 3
First Greek	Oct. 24, 9 & 1 ,,	Prof. Blackie.....	3 3
Second Greek	Oct. 24, 11 ,,	.....	3 3
Third Greek.....	Oct. 31, 2 ,,	.....	3 3
First Mathematical ...	Oct. 24, 12 ,,	Prof. Chrystal.....	3 3
Second Mathematical.	Oct. 24, 10 ,,	.....	3 3
Third Mathematical...	Oct. 30, 9 ,,	.....	3 3
Logic & Psychology...	Oct. 24, 1 ,,		3 3
Advanced (Metaphysics & History of Philos., *Mond. and Wednesday*),	Nov. 6, 3 ,,	Prof. Campbell Fraser	2 2**
Moral Philosophy.....	Oct. 24, 12 ,,	Prof. Calderwood	3 3
Do. Advanced... (*Tues. & Fri.*)...	Nov. 7, 3 ,,	.....	2 2**
Natural Philosophy...	Oct. 24, 11 ,,	Prof. Tait,.....	3 3
Do. (Advanced Class)	Nov. 1, 10 ,,	.....	3 3
Rhetoric & Eng. Lit.	Oct. 24, 4 ,,	Prof. Masson, ...	3 3
History*.....		Prof. Kirkpatrick,	
Practical Astronomy .	Dec. 1, 12 ,,	Prof. Smyth,.....	3 3
Agric. & Rural Econ.	Oct. 30, 3 ,,	Prof. Wilson, ...	4 4
Music.....	Nov. 6, 3 ,,	Prof. Sir H. Oakeley	3 3
Sanskrit and Comparative Philology ...	Oct. 31, 3 ,,	Prof. Eggeling,...	4 4
Engineering	Oct. 30, 9 ,,	Prof. F. Jenkin,..	4 4
Mechanical Drawing .	Oct. 31, 10 to 1 ,,	.....	3 3
Geology & Mineralogy	Oct. 30, 4 ,,	Prof. Geikie,.....	4 4
Com. and Pol. Econ., and Mercantile Law	Oct. 30, 5 ,,	Prof. Nicholson,	3 3
Theory, Hist., & Art of Education	Oct. 31, 3. 10 ,,	Prof. Laurie, ...	3 3
Fine Art, *Tu. & Fri.*	Oct. 31, 5 ,,	Prof. B. Brown,	3 3†

FACULTY OF DIVINITY.

Dean—Professor CHARTERIS, D.D.

Divinity.....	Nov. 1, 11 o'cl.	Prof. Flint, ...	£3 3
Div. and Church Hist.	Nov. 1, 12 ,,	Prof. Taylor,	3 3
Biblical Criticism.....	Nov. 1, 10 ,,	Prof. Charteris,...	3 3
Hebrew—Junior Cl. .	Nov. 1, 3 ,,	Prof. Adams,.....	3 3
Senior Cl.	Nov. 1, 2 ,,	.....	3 3

* Given in Summer Session.
* Fee for those who have previously attended the Junior Class.
† For Students of the Royal Scottish Academy, £1, 1s.

FACULTY OF LAW.

Dean—Professor MUIRHEAD.

Classes.	Days of Opening, and Hours of Attendance.	Professors.	Class Fe .	
Civil Law.....	Oct. 24, 9 o'cl.	Prof. Muirhead,	£5	5*
Law of Scotland	Oct. 24, 4 ,,	Prof. Macpherson	5	5*
Public Law	Oct. 31, 3 ,,	Prof. Lorimer, ...	3	3
Conveyancing	Oct. 31, 9 ,,	Prof. Tytler, ...	4	4
Commercial & Political Economy and Mercantile Law ...	Oct. 30, 5 ,,	Prof. Nicholson,	3	3
History†		Prof. Kirkpatrick	3	3
Med. Jurisprudence†		Prof. Maclagan,	4	4

FACULTY OF MEDICINE.

Dean—Professor THOMAS R. FRASER, M.D.

Anatomy§	Oct. 24, 1 o'cl.		£4	4
Practical Anatomy§...	Oct. 2, *daily*	Prof. Turner,.....	3	3
Anatom. Demonstr.§..	Oct. 24, 4 o'cl.		2	2*
Materia Medica	Oct. 24, 2 ,,		4	4
Pract. Mat. Medica, includ. Pharmacy	Oct. 24, 10 ,,	Prof. T. R. Fraser,	3	3
Chemistry	Oct. 24, 10 ,,	Prof. Crum Brown	4	4
Practical Chemistry...	Jan. 3, 2 ,,		3	3
Surgery§.....	Oct. 24, 10 ,,	Prof. Spence, ...	4	4
Institutes of Medicine§	Oct. 24, 11 ,,	Prof. Rutherford,	4	4
Practical Physiology§	Oct. 24, 9 ,,		3	3
Midwifery & Diseases of Women & Childr. §	Oct. 24, 11 ,,	Prof. Simpson, ...	4	4
Practice of Physic§ ...	Oct. 24, 9 ,,	Prof. G. Stewart,	4	4
General Pathology§...	Oct. 24, 3 ,,	Prof. Greenfield,	4	4
Practical Pathology §	Oct. 24,		3	3
Clinical Surgery— *Mon. & Thurs.*	Oct. 26, 12 o'cl.	Prof. Annandale,	4	4
Clinical Medicine— *Tues. & Fri.*	Oct. 24, 12 ,,	Profs. Maclagan, G. Stewart, T. R. Fraser, and Greenfield, and Simpson, on Dis. of Women,	4	4
Natural History— ...	Oct. 24, 2 ,,	Prof. Ewart, ...	4	4
Botany†		Prof. Dickson, ...	4	4
Med. Jurisprudence †		Prof. Maclagan,..	4	4

The Fee for a Second Course of any of the Lectures is £3, 3s.; any subsequent course is free. If a Perpetual Ticket is taken out at the beginning of the First Course, the Fee is £6, 6s.

* When taken along with Practical Anatomy, £1, 1s.
† Lectures given in Summer Session. § University New Buildings.

ROYAL INFIRMARY.

Royal Infirmary at Noon, *Daily*.—Perpetual Ticket, in one payment, £12; Annual Ticket, £6, 6s.; Six Months, £4, 4s.; Three Months, £2, 2s. Separate payments, amounting to £12, 12s., entitle to a Perpetual Ticket.

The following means are afforded for Practical Instruction in the Faculty of Medicine :—

Dissecting Rooms open daily under the superintendence of Professor Turner, assisted by Arthur Thomson, M.B., W. Bannerman, M.B., C.M., and other assistants.

Anatomical Museum under the superintendence of Prof. Turner.

Chemical Laboratories open daily, under the superintendence of the Professor, assisted by Drs Gibson and Dobbin.

Physiological Laboratory open daily, under the superintendence of Professor Rutherford, assisted by T. P. Anderson Stuart, M.B., and F. W. Grant.

Tutorial Class of Clinical Medicine, in the Wards of the Royal Infirmary, by the Clinical Tutor, J. Murdoch Brown, M.B., C.M., under the superintendence of the Clinical Professors.

Tutorial Class of Clinical Surgery in the Infirmary by the Clinical Tutor, J. M. Cotterill, M.B., C.M., under the superintendence of the Clinical Professor.

Practical Pathology and Morbid Anatomy, under the superintendence of the Professor, assisted by G. S. Woodhead, M.D., and Barclay J. Baron, M.B.

Physical Laboratory, open daily from 10 to 3, under the superintendence of Professor Tait.

Materia Medica Museum and Laboratory, open daily, under the superintendence of Professor Thomas R. Fraser, assisted by Matthew Hay, M.D.

Medical Jurisprudence Laboratory, open daily from 10 to 3, under the superintendence of Professor Maclagan, assisted by J. Allan Gray, M.D.

The Natural History Laboratory is open daily, under the superintendence of Professor Ewart, assisted by R. J. Harvey Gibson, M.A.

Operative Surgery, Bandaging, and Surgical Appliances, T. F. H. Spence, M.B., C.M., under the superintendence of Professor Spence.

Obstetric Operations, under the superintendence of Prof. Simpson, assisted by Alex. H. Barbour, M.A., M.B., C.M.

Mineralogical and Geological Laboratory and Museum, under the superintendence of Professor Geikie.

ROYAL BOTANIC GARDEN, HERBARIUM AND MUSEUM, open daily, during Summer, from 6 A.M. to 6 P.M., under the superintendence of Prof. Dickson.

PRACTICAL BOTANY AND VEGETABLE HISTOLOGY by Professor Dickson, assisted by Mr Patrick Geddes.

NATURAL HISTORY MUSEUM, in the Museum of Science and Art, Chambers Street, is open to the Students attending the Natural History Class.

ROYAL EDINBURGH ASYLUM, open to Members of the Class of Mental Diseases for Practical Instruction under the superintendence of Dr Clouston.

EXAMINERS.—The Professors of the Subjects of Examination, and the following non-professorial Examiners :—

Botany.....HUGH CLEGHORN, M.D.
Natural History.....WM. MACINTOSH, M.D.
Chemistry.....Professor DITTMAR.
Anatomy.....JOHN CHIENE, M.D.
Institutes of Medicine.....RICHARD CATON, M.D.
Materia Medica.....WILLIAM MURRELL, M.D.
Pathology.....SIDNEY COUPLAND, M.D .
Surgery.....JAMES D. GILLESPIE, M.D.
Clinical Surgery.....JAMES DUNSMURE, M.D.
Midwifery.....ALEX. KEILLER, M.D.
Practice of Physic.....ALFRED B. DUFFIN, M.D.
Clinical Medicine.....BYROM BRAMWELL, M.D.
Medical Jurisprudence....P. M. BRAIDWOOD, M.D.

MATRICULATION FEES.

For the Academical Year, . . £1 0 0
For the Summer Session only, . . 0 10 0

CLASS SESSIONS.

There are Two Sessions in each year, viz. :—

I. The Summer Session, which opens on the 2d of May and ends on the 26th of July 1882.

II. The Winter Session, which opens on the 24th of October 1882 and ends on the 6th of April 1883.

The Classes will meet for the last time before the Christmas Holidays on Thursday, Dec. 21st, and will be resumed on Wednesday, Jan. 3d.

HOLIDAYS DURING WINTER SESSION.

In the Faculty of Arts, besides the Christmas Recess and Good Friday, there is a holiday on the second Monday of February.

In the Faculties of Law, Divinity, and Medicine, the Christmas Recess and Good Friday only.

University Officers.

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Date of Institution.	*Chancellor.*	Appointed.
1859.	Right Hon. JOHN INGLIS, D.C.L., LL.D.	1868.
	Vice-Chancellor.	
1859.	Sir ALEXANDER GRANT, Bart., LL.D.	1868.
	Rector.	
1859.	The Right Hon. The EARL OF ROSEBERY	1880.
	Principal.	
1582.	Sir ALEXANDER GRANT, Bart., LL.D.	1868.
	Representative in Parliament.	
1868.	Right Hon. LYON PLAYFAIR, C.B., LL.D.,	1868, re-elected 1874 & 1880.

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University Court.

President—THE RECTOR OF THE UNIVERSITY.

THE PRINCIPAL	*Ex officio.*		
ARCHD. CAMPBELL SWINTON	Assessor,	nominated by Chancellor	1881
THE LORD PROVOST OF EDINBURGH	*Ex officio.*		
THOMAS CLARK	Assessor,	elected by Town-Council.	1878
Right Hon. LORD YOUNG, LL.D.	Do.	nominated by Rector.	1880
JOHN H. BALFOUR, M.D.	Do.	elected by General Council.	1882
A. CAMPBELL FRASER, LL.D., Professor of Logic and Metaphysics,	Do.	re-elected by Senatus	1881

Secretary—JOHN CHRISTISON, W.S., 40 Moray Place.

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Curators.

Sir ALEX. GRANT, Bart.,	Re-elected by	University Court.	Feb. 1880
ARCHD. CAMPBELL SWINTON, LL.D.	Re-elected by	do.	Feb. 1881
Hon. Lord KINNEAR	Elected by	do.	Dec. 1881
Right Hon. Sir T. J. BOYD, Lord Provost,	Elected by	Town Council	Feb. 1879
JOHN BOYD,	Re-elected by	do.	Dec. 1879
DUNCAN M'LAREN,	Elected by	do.	Dec. 1879
JAMES COLSTON	Elected by	do.	Feb. 1881

Secretary—R. BRUCE JOHNSTON, W.S., 66 Frederick Street.

Senatus Academicus.

President—The Principal of the University.

FACULTY OF ARTS.

Dean—A. Campbell Fraser, LL.D., Professor of Logic and Metaphysics.

Date of Institution.	Chairs.	Professors.	Appointed.	Patrons.
1583	Humanity	W. Y. Sellar, M.A.	1863	Lords of Session, Curators, Fac. of Advoc., Society of Writers to the Signet.*
1583	Mathematics	George Chrystal, M.A.	1879	Curators.
1583	Greek	J. S. Blackie, LL.D.	1852	Curators.
1583	Logic & Metaphysics	A. Campbell Fraser, LL.D.	1856	Curators
1583	Moral Philosophy	Henry Calderwood, LL.D.	1868	Curators.
1583	Natural Philosophy	P. G. Tait, M.A.	1860	Curators.
1760	Rhet. and Eng. Liter.	David Masson, LL.D.	1865	Crown. [Curators.
1719	History	J. Kirkpatrick, LL.B.,	1881	Faculty of Advocates and
1786	Practical Astronomy	C. Piazzi Smyth	1845	Crown.
1790	Agriculture and rural Economy	John Wilson	1854	Lords of Session, Curators, and University Court.†
1839	Music‡	Sir H. Oakeley, M.A., Mus. Doc., LL.D.	1865	University Court.
1862	Sanscrit and Comparative Philology§	Julius Eggeling, Ph.D.	1875	Crown.
1868	Engineering‖	Fleeming Jenkin	1868	Crown
1871	Geology¶	James Geikie	1882	Crown.
1871	Comm. & Polit. Economy & Mer. Law**	Joseph Shield Nicholson, M.A.	1880	Curators and Merchant Co.
1876	Theory, History, and Practice of Education.††	Simon S. Laurie, M.A.	1876	Bell Trustees.
1879	Fine Art ‡‡	G. Baldwin Brown, M.A.	1880	Univ. Court and Presid. of Royal Scott. Academy.

FACULTY OF DIVINITY.

Dean—A. H. Charteris, D.D., Professor of Biblical Criticism.

1583	Divinity	Robert Flint, D.D.	1876	Curators.
1642	Hebrew and Oriental Languages	David L. Adams, M.A., B.D.	1880	Curators.
1694	Divinity and Ecclesiastical History	M. C. Taylor, D.D.	1877	Crown.
1846	Bib. Crit. and Bib. Ant.	A. H. Charteris, D.D.	1868	Crown.

* The Judges of the Court of Session nominate two Delegates, the Curators two, the Faculty of Advocates one, and the Society of Writers to the Signet one. These six Delegates appoint the Professor, who receives his Commission from the Curators.

† The Professor is elected by nine Delegates, three chosen by the Judges of the Court of Session, three by the Curators, and three by the University Court.

‡ This Chair was endowed by General John Reid.

§ This Chair was endowed by John Muir, LL.D. (Edin.), D.C.L. (Oxon.), late of the Bengal Civil Service, and by a Parliamentary vote of £200.

‖ This Chair was endowed in 1868 by Sir David Baxter, and by an annual vote of Parliament of £200

¶ This Chair was endowed in 1871 by a sum of £6000 mortified by Sir Roderick Impey Murchison, Bart., and by an annual vote by Parliament of £200.

** This Chair was endowed in 1871 by the Merchant Company of Edinburgh, and other Governors of George Watson's and Daniel Stewart's Hospitals, who have granted a salary of £450 as the endowment.

†† This Chair has been endowed by the Trustees of the late Dr A. Bell, who have granted a sum of £6000 for this purpose.

‡‡ This Chair was endowed by Mr H. G. and Miss Frances Watson.

FACULTY OF LAW.

Dean—JAMES MUIRHEAD, Professor of Civil Law.

Date of Institution.	Chairs.	Professors.	Appointed.	Patrons.
1707	Public Law	James Lorimer, M.A.	1862	Crown.
1710	Civil Law	James Muirhead	1862	Fac. of Adv., and Curators.*
1719	Constitutional Law & History	J. Kirkpatrick, LL.B	1881	Do. do.
1722	Law of Scotland	Norman Macpherson, LL.D.	1865	Do. do.
1807	Med. Juris & Police	D. Maclagan, M.D.	1862	Crown.
1825	Conveyancing†	J. S. Fraser Tytler, LL.D., W.S.	1866	Curators, Deputy-Keeper and Society of Writers to the Signet.‡
1871	Com. and Pol. Econ. and Mercan. Law	Joseph S. Nicholson, M.A.	1880	Curators and Merchant Company.

FACULTY OF MEDICINE.

Dean—T. R. FRASER, M.D., Professor of Materia Medica.

1676	Botany	A. Dickson, M.D.	1879 Curators.
1685	Institutes of Medicine	Wm. Rutherford, M.D.	1874 Curators.
1685	Practice of Physic	T. Grainger Stewart, M.D.,	1876 Curators.
1705	Anatomy	Wm. Turner, M.B.	1867 Curators.
1713	Chemistry and Chemical Pharmacy	A. Crum Brown, M.D.	1869 Curators.
1726	Midwifery & Diseases of Women & Child.	Alex. R. Simpson, M.D.	1870 Curators.
1741	Clinical Medicine	D. Maclagan. M.D.	1862
		T. G. Stewart, M.D.	1876
		Thos. R. Fraser, M.D.	1877
		W. S. Greenfield, M.D.	1881
		Diseases of Women—Alex. R. Simpson, M.D.	1870
1767	Natural History	J. Cossar Ewart, M.D.	1882 Crown.
1768	Materia Medica	Thomas R. Fraser, M.D.	1877 Curators.
1803	Clinical Surgery	Thos. Annandale, M.D.	1877 Crown.
1807	Med. Jurisp. & Police.	D. Maclagan, M.D.	1862 Crown.
1831	Surgery	James Spence	1864 Curators.
1831	General Pathology	W. S. Greenfield, M.D.	1881 Curators.

Secretary of the Senatus Academicus—Professor WILSON.

UNIVERSITY LECTURERS.

Science of Religion	Rev. A. M. Fairbairn, D.D.
Mental Diseases	T. S Clouston, M.D.
Contract Law: Distinctive Principles of Contract in Scotland.	John Ferguson M'Lennan, M.A., LL.B., Univ. Asso. Endowment Law Fellow.

* For this Chair, as also for the Chairs of Scots Law and of Constitutional Law and History, the Faculty of Advocates send to the Curators a leet of two, of whom the Curators must choose one.

† Endowed by the Society of Writers to the Signet.

‡ The Election is by—(1) Two Delegates from the Curators; (2) Two from the Society of Writers to the Signet; and (3) The Deputy-Keeper of the Signet.

ASSISTANTS TO PROFESSORS.

IN THE FACULTY OF ARTS.

Humanity	William Peterson, M.A.
Greek	George B. Gardiner, M.A.
Mathematics	Wm. Thomson, M.A., B.Sc.
Logic and Metaphysics,	Andrew Seth, M.A.
Moral Philosophy,	Alex. Martin, M.A.
Natural Philosophy	C. G. Knott, M.A., D.Sc.
Rhetoric and English Literature	W. L. Carrie, M.A.
Engineering,	James G. Fairweather, C.E.

IN THE FACULTY OF LAW.

Civil Law	James Forrest, B.A.
Scots Law	Percival Waugh, R. L. Orr, LL.B.
Conveyancing	James M'Isaac, John C. Carson, Wm. Nicoll.

IN THE FACULTY OF MEDICINE.

Clinical Medicine Tutor	J. Murdoch Brown, M.B., C.M.
Clinical Medicine	Charles Kennedy, M.B., F. W. Innes, M.B., J. Hosack Fraser, M.B., J. Hewetson, M.B., R. M'Stalker, M.B., J. Lockhart Gibson, M.B.
Clinical Surgery Tutor	J. M. Cotterill, M.B., C.M.
Clinical Surgery	John Thomson, M.B., Patrick Maxwell, M.B.
Anatomy	Arthur Thomson, M.B., W. Bannerman, M.B., R. Scot-Skirving, M.B.
Chemistry	R. M. Morrison, D.Sc., John Gibson, Ph.D., Leonard Dobbin, Ph.D., and Hugh Robert Mill.
Institutes of Medicine	J. P. Anderson Stuart, M.B., C.M., and Francis William Grant.
Materia Medica	Matthew Hay, M.D.
Medical Jurisprudence	James Allan Gray, M.D.
Midwifery	A. H. Barbour, M.A., M.B., C.M.
Botany	Patrick Geddes, J. Muirhead Macfarlane, B.Sc.
Surgery	T. F. H. Spence, M.A., M.B., C.M.
Pathology	G. S. Woodhead, M.D., Barclay J. Baron, M.B.
Practice of Physic	James Ritchie, M.B.
Natural History	R. J. Harvey Gibson, M.A.

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University Examiners for Degrees.

IN THE FACULTY OF ARTS.

The Professors of Humanity, Mathematics, Greek, Logic and Metaphysics, Moral Philosophy, Natural Philosophy, Rhetoric and English Literature.

JOHN MARSHALL, M.A., *Examiner in Classical Literature.* Appointed 1879
HUGH J. E. FRASER, M.A., *Examiner in Mental Philosophy.* ,, 1880
ALEXANDER MACFARLANE, M.A., D.Sc., *Examiner in Mathematics.* ,, 1881

IN FACULTY OF DIVINITY, FOR DEGREE OF BACHELOR OF DIVINITY.

The Professors of the Faculty of Theology.

THOMAS ADAMSON, B.D.
JOHN PATRICK, B.D. } Appointed 1880

IN THE FACULTY OF LAW, FOR DEGREES OF BACHELOR OF LAWS AND BACHELOR OF LAW.

The Professors of the Faculty of Law, with the Examiners in Arts, and Professor EGGELING for Preliminary Examinations.

GEORGE READMAN, LL.B.
HENRY GOUDIE, LL.B. } Appointed 1881

In the Faculty of Medicine.

The Professors of the Faculty of Medicine, with the Examiners in Arts, and Professor Eggeling for Preliminary Examinations.

Alexander Keiller, M.D., Midwifery.	Appointed	1878
John Chiene, F.R.C.S.E., Anatomy.	,,	1878
B. M. Braidwood, M.D., Med. Jurisprudence.	,,	1879
Alfred R. Duffin, M.D., Practice of Physic.	,,	1880
William M'Intosh, M.D., Natural History.	,,	1880
Hugh Cleghorn, M.B., Botany.	,,	1880
James Dunsmure, M.D., Clinical Surgery.	,,	1880
W. Dittmar, Chemistry.	,,	1881
James D. Gillespie, M.D., Surgery.	,,	1882
Byrom Bramwell, M.D., Clinical Medicine.	,,	1882
Richard Caton, M.D., Institutes of Medicine.	,,	1882
Wm. Murrell, M.D., Materia Medica.	,,	1882
Sidney Coupland, M.D., Pathology.	,,	1882

For Degrees in Public Health.

Chemistry—Professors Maclagan, Crum Brown, and T. R. Fraser.
Physics—Professors Tait and Fleeming Jenkin.
Sanitary Law and Vital Statistics—Professors Tait and Maclagan.
Medicine—Professors Maclagan, Grainger Stewart, T. R. Fraser.
Practical Sanitation—Professors Maclagan, Fleeming Jenkin, and T. R Fraser.

For Degrees in Engineering.

Professor Fleeming Jenkin.
Thomas Stevenson, C.E., reappointed 1880.

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University Librarian.

John Small, M.A.

Assistants.

Alex. Anderson. | C. Martin.
J. H. S. Gregory. | D. Cuthbertson

Ralph Hardy.

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Keepers of Museums.

Museum of Natural History—Professor Ewart.
Anatomical Museum—Professor Turner. *Assistant*—James Simpson.

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Factor of the University—John Cook, W.S.
Clerk of the University, and Secretary and Registrar of General Council,.....—Thomas Gilbert
Assistant Registrars—David Lister Shand, W.S. J. Small, M.A.
Janitor—John Chapman.

University of Edinburgh.

CHARTER.

THE University of Edinburgh was founded in 1582, by a Royal Charter granted by James VI. The Charter contemplates a University on a wide basis, with the conditions necessary for liberal study, and arrangements suited to the progressive state of modern science. In 1621, an Act was passed by the Scottish Parliament, which ratified to the University, in ample form, all the rights, immunities, and privileges enjoyed by other Universities in the kingdom. This ratification was renewed in the Treaty of Union between England and Scotland, and in the Act of Security. The privileges and efficiency of the University have been augmented by the Universities (Scotland) Act (1858), making provision for the better government and discipline of the Universities of Scotland, and for improving and regulating the course of study therein.

The University is a Corporation, consisting of a Chancellor, Rector, Principal, Professors, Registered Graduates and Alumni, and Matriculated Students; and including in its government the University Court, the Senatus Academicus, and the General Council.

CHANCELLOR.

The Chancellor is elected for life by the General Council. He is the head of the University. Changes in its internal arrangements, proposed by the University Court, must receive his sanction. It is through him, or his deputy the Vice-Chancellor, that Degrees are conferred. The Chancellor is President of the General Council.

Chancellors.—Right Hon. LORD BROUGHAM, elected 1859, died 1868.
Right Hon. JOHN INGLIS, Lord President of the Court of Session, elected 1868.

VICE-CHANCELLOR.

The Vice-Chancellor is nominated by the Chancellor. He may, in the absence of the Chancellor, discharge the duties of

his office in so far as regards conferring of Degrees, but in no other respects. In his absence Degrees are conferred by the senior member of Senatus present.

Upon the Vice-Chancellor is imposed the duty of acting as Returning Officer at Parliamentary Elections. If there be no Vice-Chancellor at the time of an Election, the University Court may appoint one, but only to act as Returning Officer.

Vice-Chancellors.—Sir D. BREWSTER, elected 1860, died 1868.
Sir ALEXANDER GRANT, Bart., elected 1868.

RECTOR.

The Rector is elected by the Matriculated Students on the second Saturday after the commencement of the Winter Session. The term of office is three years. The next election takes place in November 1883. The Rector is President of the University Court. The appointments have been—

Right Hon. WILLIAM GLADSTONE, 1859, re-elected 1862.
THOMAS CARLYLE, 1865.
Right Hon. LORD MONCREIFF, 1868.
Sir WILLIAM STIRLING MAXWELL, Bart., 1871.
Right Hon. The EARL OF DERBY, 1874.
The Most Hon. The MARQUIS OF HARTINGTON, M.P., 1877.
Right Hon. The EARL OF ROSEBERY, 1880.

REPRESENTATIVE IN PARLIAMENT.

In accordance with Clauses 27 to 41 of the "Representation of the People (Scotland) Act," 31st and 32d Vict., cap. 48, the Chancellors, Members of the University Court, Professors, and Members of the General Councils of the Universities of Edinburgh and St Andrews, are entitled to elect a Member to serve in Parliament for these Universities.

The Writ for the first election was issued in November 1868, when Dr Lyon Playfair, C.B., and Archibald Campbell Swinton of Kimmerghame, came forward as Candidates. After a poll extending from 30th November to 4th December inclusive, in which 1753 members voted for Dr Playfair in Edinburgh, and 569 in St Andrews; and 1510 for Mr Campbell Swinton in Edinburgh, and 557 in St Andrews, Dr Playfair had a majority of 255 votes, and was declared to be duly elected. On his appointment of Postmaster-General in 1873, Dr Playfair was

re-elected without opposition ; and on the dissolution of Parliament in 1874, Dr Playfair was again re-elected without opposition. In 1880, on the dissolution of Parliament, Mr Bickersteth, of Liverpool, contested the seat, and polled 810 votes in St Andrews, and 1638 in Edinburgh—total, 2448; but the Right Hon. L. Playfair polled 541 in St Andrews, and 1981 in Edinburgh—total, 2522, and having thus a majority of 74, was again duly elected.

On the 30th September 1868, the day on which the Register for the year 1869 closed, the Parliamentary constituency was as follows :—

Edinburgh	3652
St Andrews	1228
Total in 1868	4880

In 1882 :—

Edinburgh	4525
St Andrews	1599
Total in 1882	6124

The Right Hon. Lyon Playfair, C.B., re-elected 1880.

UNIVERSITY COURT.

The University Court has the following powers :—

1. To review all decisions of the Senatus Academicus, and to be a Court of Appeal from the Senatus in every case, except as otherwise provided in the Universities' Act :

2. To effect improvements in the internal arrangements of the University, after due communication with the Senatus Academicus, and with the sanction of the Chancellor ; provided that all such proposed improvements shall be submitted to the general Council for their consideration :

3. To require due attention on the part of the Professors to the Regulations as to the mode of teaching and other duties imposed on the Professors :

4. To fix and regulate, from time to time, the Fees in the several Classes :

5. Upon sufficient cause shewn, and after due investigation, to censure any member of the Senatus Academicus, or to suspend him from his office, and from the emoluments thereof, in whole or in part, for any period not exceeding one year, or to require him to retire from his office on a retiring allowance, or to deprive him of his office ; and during the Suspension of any Professor, to make due provision for the teaching of his class : Provided always that no such sentence of censure, suspension, or deprivation, or requisition on a Professor to retire from office, shall have any effect until it has been approved by Her Majesty in Council :

6. To inquire into and control the administration by the Senatus Academicus, of the revenue, expenditure, and all the pecuniary concerns of the University, including Funds mortified for Bursaries and other purposes.

Any of the Rules, Statutes, or Ordinances enacted by the Universities' Commissioners may be altered or revoked by the University Court, but only with the consent, expressed in writing, of the Chancellor, and with the approval of Her Majesty in Council.

The University Court holds the patronage of the Chair of Music, and, in conjunction with the President of the Royal Scottish Academy, that of the Chair of Fine Art, as well as a share in the patronage of the Chair of Agriculture. It appoints the Additional Examiners for Degrees in Arts, Science, Divinity, Law, and Medicine. The appointments of those Assistants to Professors provided for by Ordinance of the Universities' Commissioners are subject to its approval.

The Court consists of the following members, viz. :—1. The Rector. 2. The Principal. 3. An Assessor appointed by the Chancellor. 4. The Lord Provost of Edinburgh for the time being. 5. An Assessor elected by the Lord Provost, Magistrates, and Town Council, of Edinburgh. 6. An Assessor appointed by the Rector. 7. An Assessor elected by the General Council of the University. 8. An Assessor elected by the Senatus Academicus. No Principal or Professor of any University is eligible to the office of Rector or Assessor, except in the case of the Assessor elected by the Senatus Academicus. The Rector and his Assessor continue in office for three years, and the other Assessors for four years. Five members of the Court constitute a quorum. The Rector, who is the ordinary President, has a deliberative and a casting vote. In his absence, the Member of the Court present who is first mentioned in the enumeration of its Members in the Universities' Act presides, with a deliberative vote only; and in the event of an equality of votes, the consideration of the question must be adjourned to a day of which due notice must be given to the Rector; and if the Rector does not then attend, the Member presiding at such subsequent meeting has both a deliberative and a casting vote.

Stated Meetings of the Court are held upon the first Monday after the 19th of January (for hearing Registration appeals and appointment of Examiners in various departments*), the second

* See Regulations, APPENDIX p. 29.

Mondays of April and July (when Examiners in Arts are appointed), and the third Monday of October (when Assistant-Registrars are appointed, and the appointments of Class-Assistants submitted for approval).

An abstract of the proceedings of the Court is given at a subsequent part of the CALENDAR.

The Assessors appointed by the Chancellors, Town Council, Rectors, General Council, and Senatus Academicus, have been as follow :—

Chancellors' Assessors—
Sir JOHN MELVILLE, 1859.
ALEXANDER WOOD, M.D., 1860.
E. S. GORDON, Q.C., 1868.
Hon. LORD CURRIEHILL, 1871, 1875, 1879.
ARCHIBALD CAMPBELL SWINTON, 1881.

Town Council's Assessors—
R. S. GRIEVE, 1859.
JAMES MACKNIGHT, W.S., 1863, 1867, 1871, 1875.
THOMAS CLARK, 1878.

Rector's Assessors—
JOHN BROWN, M.D., 1859, 1862.
DAVID LAING, LL.D., 1865.
ALEXANDER NICOLSON, M.A., 1868.
HENRY HILL LANCASTER, 1871.
A. CAMPBELL SWINTON, LL.D., 1871, 1874.
Right Hon. LORD YOUNG, 1877, 1880.

General Council's Assessors—
EDWARD F. MAITLAND, LL.D., 1859.
JOHN MUIR, D.C.L., LL.D., 1863.
KENNETH M. PHIN, D.D., 1867.
WILLIAM LINDSAY ALEXANDER, D.D., 1871, 1875.
Sir ROBERT CHRISTISON, Bart., 1879.
JOHN HUTTON BALFOUR, M.D., 1882.

Senatus Academicus' Assessor—
Sir ROBERT CHRISTISON, Bart., 1859, 1863, 1867, 1871, 1875.
A. CAMPBELL FRASER, LL.D., 1877, 1881.

CURATORS.

By the Universities (Scotland) Act (1858), the patronage of the seventeen Chairs, previously in the gift of the Town Council, was transferred to seven Curators—three nominated by the University Court, and four by the Town Council. Besides these seventeen Chairs, the Curators have also a share in the patronage of those of Humanity, Agriculture, Civil Law, Law of Scot-

land, and Conveyancing, which was formerly possessed by the Town Council. The Curators hold office for three years. The appointments of Curators have been as follow :—

Elected by Town Council—

Robert Johnston, W.S., 1859.
Andrew Fyfe, S.S.C., 1859.
David Peat, 1859.
John Mood, 1859.
Right Hon. Charles Lawson, Lord Provost, 1862.
Adam Black, 1862.
Right Hon. Sir Wm. Gibson-Craig, Bart., 1862.
Right Hon. William Chambers, Lord Provost, 1865.
Alexander Bryson, 1865.
George E. Russell, 1867.
William Skinner, 1868.
William Chambers, LL.D., 1870.
Right Hon. W. Law, Lord Provost, 1870.
Hon. Lord Gifford, 1870.
Right Hon. James Cowan, Lord Provost, 1873.
William Chambers, LL.D., 1873, 1876.
John Tawse, W.S., 1873.
Hon. Lord Gifford, 1874, 1877.
Right Hon. Sir J. Falshaw, Bart., 1876.
John Boyd, 1876.
Right Hon. Sir T. J. Boyd, 1879.
Duncan M'Laren, 1879.
James Colston, 1881.

Elected by University Court—

Right Hon. W. E. Gladstone, 1859, 1863.
Edward F. Maitland, LL.D., 1859.
David Mure, M.P., 1859, 1863.
Sir David Brewster, K.H., 1863, 1866.
Right Hon. John Inglis, Lord Justice-Clerk, 1866.
Right Hon. Sir Wm. Gibson-Craig, Bart., 1866, 1869.
D. Milne Home, LL.D., 1868, 1871.
Hon. Lord Neaves, LL.D., 1869, 1872.
Sir William Stirling Maxwell, Bart., K.T., 1872, 1875.
Right Hon. Sir John M'Neill, 1874.
Hon. Lord Rutherfurd Clark, LL.D., 1875, 1878.
Sir Alexander Grant, Bart., 1877, 1880.
Archd. Campbell Swinton, LL.D., 1878, 1881.
Hon. Lord Curriehill, 1881.
Hon. Lord Kinnear, Q.C., 1881.

REPRESENTATIVE IN GENERAL MEDICAL COUNCIL.

In accordance with clause 4 of the Medical Act of 1858, the

Universities of Edinburgh and Aberdeen are entitled to elect a Member of the "General Council of Medical Education and Registration of the United Kingdom."

The first election took place in 1858, when Professor James Syme was elected for five years. He was re-elected for a like period in 1863; and in 1868, Dr Macrobin, Professor of the Practice of Medicine in Aberdeen, was elected. Professor W. Turner was elected in 1873 to hold office for five years, and was re-elected in 1878.

James Syme, 1858, re-elected 1863.
John Macrobin, M.D., 1868.
William Turner, M.B., 1873, re-elected 1878.

PRINCIPAL.

The Principal is appointed by the Curators. The office is held for life. The Principal is the resident Head of the College, and President of the Senatus Academicus. His official residence is No. 21 Lansdowne Crescent.

Principals Elected since 1582.

1585. Robert Rollock, *First Regent*
1599. Henry Charteris
1620. Patrick Sands
1622. Robert Boyd
1623. John Adamson
1652. William Colvill
1653. Robert Leighton
1662. William Colvill
1675. Andrew Cant
1685. Alexander Monro
1690. Gilbert Rule
1703. William Carstares
1716. William Wishart
1730. William Hamilton
1732. James Smith
1736. William Wishart, *secundus*
1754. John Gowdie
1762. William Robertson
1793. George Husband Baird
1840. John Lee
1859. Sir David Brewster
1868. Sir Alex. Grant, Bart.

SENATUS ACADEMICUS OR SENATE.

The Principal and whole Professors constitute the Senatus Academicus or Senate. This body is entrusted with the superintendence and regulation of the teaching and discipline of the University, and with the administration of its revenues and property, including the Library, Museums, and University Buildings. Degrees in Arts, Medicine, Law, and Theology are conferred, on the recommendation of the Senatus, by the Chancellor or Vice-Chancellor. The Principal is President, with a deliberative and also a casting vote. In the absence of the Principal, the Senior

Professor present acts as Chairman, also with a double vote. The Ordinary Meetings of Senatus are held on the Monday in October before the opening of the Session, the last Saturday of November, January, February, and March; on the Saturday immediately preceding the Christmas holidays; on the last Friday of May, June, and July; on the 1st August, not being a Sunday (for conferring Degrees in Medicine); and in April (for conferring Degrees in Arts, Law, and Theology), on a day fixed at the Meeting in March. Extraordinary Meetings may be summoned by the Principal or by three Professors. One-third of the Senatus constitutes a quorum.

The business of the Senatus is conducted by the Secretary, who prepares the Minutes, summons the Meetings, intimates business assigned to the Principal, to the Dean of any Faculty, or to the Convener of any Committee, and draws up the return for the Widows' Fund. The Secretary also administers the *Sponsio Academica* to Graduates.

FACULTIES AND DEANS.

The Chairs of the University are comprehended in the four Faculties. Each Faculty is presided over by a Dean, who is elected from among the Professors of the Faculty, with the approval of the Senatus. Persons recommended for Degrees, in the different Faculties, are presented to the Senatus by the Dean, to whom all communications regarding the Classes in the Curriculum or Graduation should be addressed. The Deans of each Faculty are mentioned at pp. 2, 3.

FACULTY OF ARTS.

The Faculty of Arts, the most ancient in the University, comprehends the Seven Chairs of Humanity (Latin), Mathematics, Greek, Logic and Metaphysics, Moral Philosophy, Natural Philosophy, and Rhetoric and English Literature. Attendance on those Classes only is required for the Degree of Master of Arts.

With the Faculty of Arts are also connected the Professorships of History (in conjunction with the Faculty of Law), Practical Astronomy, Agriculture, Music, Sanskrit, Civil Engineering, Geology, Political Economy, the Theory of Education and Fine

Professors and Regents in the Faculty of Arts since 1582.

Professors of Humanity since 1597.

1597. John Ray
1606. Blase Colt
1611. Oliver Colt
1611. Robert Burnet
—— Andrew Stevenson
1623. Samuel Rutherford
1626. Thomas Crawford
1630. John Armour
1633. Alexander Gibson
1636. James Wiseman
1638. Robert Young
1644. James Pillans
1653. John Wishart
1656. William Forbes
1656. James M'Gowan
1658. Hugh Smith
1663. William Cumming
1665. Andrew Ross
1665. Thomas Bell
1676. Gilbert MacMurdo
1679. Alexander Cunningham
1689. John Drummond
1690. Laurence Dundas
1728. Adam Watt
1734. John Kerr
1741. George Stuart
1775. John Hill
1806. Alexander Christison
1820. James Pillans
1863. W. Y. Sellar

Profs. of Mathematics since 1620.

1620. Andrew Young
1640. Thomas Crawford
1674. James Gregory
1683. David Gregory
1692. James Gregory
1725. Colin M'Laurin
1747. Matthew Stewart
1775. Dugald Stewart
1785. Adam Ferguson
1785. John Playfair
1805. John Leslie
1819. William Wallace
1838. Philip Kelland
1879. George Chrystal.

Regents since 1583.

[*The Chairs of Greek, Logic, and Metaphysics, Moral Philosophy, and Natural Philosophy were occupied by the Regents, in rotation, from* 1583 *until* 1708.]

1583. Robt. Rollock, *first Regent*
1583. Duncan Nairn
1585. Charles Lumisdaill
1586. Adam Colt
1586. Alexander Scrimgeour
1587. Philip Heslop
1588. Charles Ferme or Fairholm
1589. Henry Charteris
1589. Patrick Sands
1594. George Robertson
1597. John Rae
1597. William Craig
1597. John Adamson
1598. James Knox
1598. Robert Scott
1601. Andrew Young
1603. James Reid
1604. David Munro
1606. Blase Colt
1607. James Fairley
1608. William King
1611. Andrew Stevenson
1617. Robert Burnet
1625. Samuel Rutherford
1625. Robert Ranken
1626. Thomas Crawford
1626. John Brown
1630. John Armour
1631. Alexander Hepburn
1633. Alexander Gibson
1636. James Wyseman
1638. James Wright
1638. Robert Young
1639. Duncan Forrester
1644. William Tweedie
1644. James Pillans
1647. Andrew Suttie
1653. John Wishart

1654. William Forbes
1656. James M'Gown
1658. Hugh Smith
1663. William Cumming
1665. Andrew Ross
1665. George Sinclair
1665. Thomas Bell
1666. John Wood
1667. William Paterson
1679. Gilbert M'Murdoch
1679. Andrew Massie
1680. Alexander Cockburn
1682. Robert Lidderdail
1684. Herbert Kennedy
1686. Thomas Burnet
1689. Alexander Cunningham
1689. John Drummond
1690. William Law
1690. Lawrence Dundas
1695. John Row
1695. William Scott
1701. Charles Areskine
1703. Robert Stewart
1707. Colin Drummond

Professors of Greek since 1708.

1708. William Scott, *one of the Regents*
1729. William Scott, *secundus*
1730. Colin Drummond
1738. Robert Law
1741. Robert Hunter
1772. Andrew Dalziel
1805. George Dunbar
1852. JOHN STUART BLACKIE.

Professors of Logic and Metaphysics since 1708.

1708. Colin Drummond, *one of the Regents*
1730. John Stevenson
1774. John Bruce
1786. James Finlayson
1808. David Ritchie
1836. Sir Wm. Hamilton, Bart.
1856. A. CAMPBELL FRASER.

Professors of Moral Philosophy since 1708.

1708. William Law *one of the Regents*
1729. William Scott
1734. John Pringle
1745. William Cleghorn
1754. James Balfour
1764. Adam Ferguson
1785. Dugald Stewart
1810. Thomas Brown
1820. John Wilson
1853. P. C. M'Dougall
1868. HENRY CALDERWOOD.

Professors of Natural Philosophy since 1708.

1708. Robert Stewart, *one of the Regents*
1742. John Stewart
1759. Adam Ferguson
1764. James Russell
1774. John Robison
1805. John Playfair
1819. Sir John Leslie
1833. James David Forbes
1860. PETER GUTHRIE TAIT

Professors of Rhetoric and English Literature since 1762.

1762. Hugh Blair
1784. William Greenfield
1801. Andrew Brown
1835. George Moir
1840. William Spalding
1845. W. E. Aytoun
1865. DAVID MASSON.

Professors of History since 1719
(See Faculty of Law.)

Professors of Practical Astronomy since 1786.

1786. Robert Blair
1834. Thomas Henderson
1846. CHARLES PIAZZI SMYTH

Professors of Agriculture since 1790.

1790. Andrew Coventry
1831. David Low
1854. JOHN WILSON

Professors of the Theory of Music since 1839.

1839. John Thomson.
1841. Sir Henry Rowley Bishop
1844. Henry Hugh Pearson.
1845. John Donaldson
1865. Sir HERBERT OAKELEY

Professor of Technology.

1855. George Wilson
[Chair abolished 1859.]

Professors of Sanskrit since 1862.

1862. Theodor Aufrecht
1875. JULIUS EGGELING.

Professor of Engineering.

1868. FLEEMING JENKIN

Professors of Geology.

1871. Archibald Geikie
1882. JAMES GEIKIE.

Professor of Commercial and Polit. Economy and Mercantile Law.

1871. W. B. Hodgson
1880. JOSEPH SHIELD NICHOLSON

Professor of Education.

1876. SIMON S. LAURIE.

Professor of Fine Art.

1880. GERARD B. BROWN

FACULTY OF DIVINITY.

This Faculty, the second in chronological order, comprehends the four Chairs of Divinity, Hebrew and Oriental Languages, Divinity and Ecclesiastical History, and Biblical Criticism and Antiquities.

PROFESSORS IN THE FACULTY OF DIVINITY SINCE 1620.

Professors of Divinity since 1620.

1620. Andrew Ramsay
1627. Henry Charteris
1629. James Fairly
1630. John Sharpe
1648. Alexander Colvill
1649. Samuel Rutherford
1650. David Dickson
1662. Patrick Scougall
1664. William Keith
1675. Laurence Charteris
1682. John Menzies
1683. John Strachan
1690. George Campbell
1701. George Meldrum
1709. William Hamilton
1732. James Smith
1733. John Gowdie
1754. Robert Hamilton
1779. Andrew Hunter
1809. William Ritchie
1828. Thomas Chalmers
1844. John Lee
1859. Thomas J. Crawford.
1876. ROBERT FLINT.

Professors of Hebrew and Oriental Languages since 1642.

1642. Julius Conradus Otto
1656. Alexander Dickson
1679. Alexander Amedeus
1681. Alexander Douglas
1692. Patrick Sinclair
1694. Alexander Rule
1702. John Goodall
1719. James Crawford
1732. William Dawson
1751. James Robertson
1792. George Husband Baird
1793. William Moodie.
1812. Alexander Murray

1813. Alexander Brunton
1848. David Liston
1880. DAVID LAIRD ADAMS

Professors of Divinity and Church History since 1695.

1702. John Cumming
1715. William Dunlop
1726. Matthew Crawford
1737. Patrick Cumming
1762. Robert Cumming
1788. Thomas Hardie
1799. Hugh Meiklejohn
1831. David Welsh
1844. James Robertson
1861. William Stevenson
1872. Robert Wallace
1876. MALCOLM C. TAYLOR

Professors of Biblical Criticism and Biblical Antiquities since 1846.

1847. Robert Lee
1868. A. H. CHARTERIS

FACULTY OF LAW.

This Faculty comprehends the seven Chairs of Public Law, Civil or Roman Law, Constitutional Law and History (in conjunction with the Faculty of Arts), Law of Scotland, Medical Jurisprudence (in conjunction with the Faculty of Medicine), Conveyancing, and Commercial and Political Economy and Mercantile Law. Attendance on these classes is required for the Degree of Bachelor of Laws.

PROFESSORS IN THE FACULTY OF LAW SINCE 1707.

Professors of Public Law since 1707.

1707. Charles Areskine
1734. William Kirkpatrick
1735. George Abercrombie
1759. Robert Bruce
1764. James Balfour
1779. Allan Maconochie
1796. Robert Hamilton
1832. * * *
1862. JAMES LORIMER

Professors of Civil Law since 1710.

1710. James Craig
1732. Thomas Dundas
1745. Kenneth M'Kenzie
1755. Robert Dick
1792. John Wilde
1800. Alexander Irving
1827. Douglas Cheape
1842. A Campbell Swinton
1862. JAMES MUIRHEAD

Professors of History since 1719.

1719. Charles Mackie
1753. John Gordon
1754. William Wallace
1755. John Pringle
1780. Alex. Fraser Tytler
1801. William Fraser Tytler
1821. Sir William Hamilton
1837. George Skene
1842. James Frederick Ferrier
1846. Cosmo Innes
1874. Æneas J. G. Mackay
1881. JOHN KIRKPATRICK

Professors of the Law of Scotland since 1722.

1722. Alexander Bayne
1737. John Erskine
1765. William Wallace
1786. David Hume
1822. George Joseph Bell
1843. John Schank More

1861. George Ross
1864. George Moir
1865. NORMAN MACPHERSON

Professors of Medical Jurisprudence since 1807.

1807. Andrew Duncan, *secundus*
1820. William Pulteney Alison
1822. Robert Christison
1832. Thomas Stewart Traill
1862. DOUGLAS MACLAGAN

Professors of Conveyancing since 1825.

1825. Macvey Napier
1847. Allan Menzies
1856. A. Montgomerie Bell
1866. JAMES S. FRASER TYTLER

Professors of Commercial and Political Economy since 1871.

1871. W. B. Hodgson, and reappointed 1878.
1880. JOSEPH SHIELD NICHOLSON

FACULTY OF MEDICINE.

The Faculty comprehends the twelve Chairs of Botany, Institutes of Medicine, Practice of Physic, Anatomy, Chemistry, Midwifery, Natural History, Materia Medica, Clinical Surgery, Medical Jurisprudence (in conjunction with the Faculty of Law), Surgery, and General Pathology. Some of these Chairs were instituted in the seventeenth century, but it does not appear that the Medical School and Faculty of the University was established sooner than the early part of last century.

PROFESSORS IN THE FACULTY OF MEDICINE SINCE 1676.

Professors of Botany since 1676.

1676. James Sutherland
1706. Charles Preston
1712. George Preston

Professors of Medicine and Botany.

1738. Charles Alston
1761. John Hope
1786. Daniel Rutherford
1820. Robert Graham
1845. John Hutton Balfour
1879. ALEXANDER DICKSON

Professors of Medicine in 1685.

1685. Sir Robert Sibbald, James Halket, Archibald Pitcairne

Professors of Institutes of Medicine since 1724.

1724. William Porterfield
1726. Andrew St Clair, John Rutherford
1747. Robert Whytt
1766. William Cullen
1773. Alex. Monro Drummond
1776. James Gregory
1789. Andrew Duncan
1819. Andrew Duncan, *secundus*
1821. William Pulteney Alison
1842. Allen Thomson
1848. John Hughes Bennett
1874. WILLIAM RUTHERFORD

Professors of Practice of Physic since 1724.

1724. William Porterfield.
1726. Andrew St Clair, John Rutherford
1747. Robert Whytt.
1766. John Gregory
1773. William Cullen
1790. James Gregory
1821. James Home
1842. William Pulteney Alison
1855. Thomas Laycock
1876. T. GRAINGER STEWART

* This Chair was declared to be a Professorship in the Law as well as the Arts Faculty by resolution of the Senatus Academicus in 1879.

Professors of Anatomy since 1705.

1705. Robert Elliot
1708. Adam Drummond
1716. John M'Gill
1720. Alexander Monro
1754. Alex. Monro, *secundus*
1798. Alexander Monro, *tertius*
1846. John Goodsir
1867. William Turner

Professors of Chemistry and Medicine since 1713.

1713. James Crawford
1726. Andrew Plummer
1726. John Innes
1755. William Cullen
1766. Joseph Black
1795. Thomas Charles Hope

Professors of Chemistry.

1844. William Gregory
1858. Lyon Playfair
1869. Alex. Crum Brown

Professors of Midwifery since 1726.

1726. Joseph Gibson
1739. Robert Smith
1756. Thomas Young
1780. Alexander Hamilton
1800. James Hamilton
1840. Sir J. Y. Simpson, Bart.
1870. Alexander R. Simpson

Professors of Natural History since 1767.

1770. Robert Ramsay
1779. John Walker
1804. Robert Jameson
1854. Edward Forbes
1855. George James Allman
1870. Sir Wyv. T. C. Thomson
1882. J. Cossar Ewart

Professors of Materia Medica since 1768.

1768. Francis Home
1798. James Home
1821. Andrew Duncan, *secundus*
1832. Sir Robt. Christison, Bart.
1877. Thomas R. Fraser

Professors of Clinical Surgery since 1803.

1803. James Russell
1833. James Syme
1869. Joseph Lister
1877. Thomas Annandale

Professors of Military Surgery since 1806.

1806. John Thomson
1823. Sir George Ballingall

[Chair abolished.]

Professors of Medical Jurisprudence since 1807.

[See Faculty of Law.]

Professors of Surgery since 1777.

1777. Alex. Monro, *secundus*
1798. Alexander Monro, *tertius*
1831. John William Turner
1836. Sir Charles Bell
1842. James Miller
1864. James Spence

Professors of General Pathology since 1831.

1831. John Thomson
1842. William Henderson
1869. W. R. Sanders
1881. W. S. Greenfield

ASSISTANTS TO PROFESSORS.

In the Faculty of Arts there are Assistants to the Professors of Humanity, Greek, Mathematics, and Natural Philosophy, provided in accordance with the Ordinances of the Scottish Universities Commissioners. Each of these receives an annual salary of £100. In the Faculty of Medicine there

are assistants to the Professors of Anatomy, Chemistry, Materia Medica, and Medical Jurisprudence, also provided by these ordinances, with salaries varying from £25 to £100. The Assistants in these various classes are appointed annually by their respective Professors, subject to the approval of the University Court. The Professors of Logic, Moral Philosophy, Rhetoric, Engineering, Scots Law, Conveyancing, Natural History, Institutes of Medicine, Practice of Physic, Surgery, Midwifery, Clinical Medicine and Pathology, have also Assistants provided by the Senatus. The Professor of Music has an allowance of £200 from the Reid Fund for Assistants and Class expenses.

GENERAL COUNCIL OF THE UNIVERSITY.

The General Council consists of the Chancellor, the Members of the University Court, the Professors, the Graduates, and also all persons who shall establish that, previous to 2d August 1861, they had, as Matriculated Students, given regular attendance on the course of study in the University for four complete Sessions, or for three complete Sessions in this, and a fourth in another Scottish University—the attendance for at least two of such sessions having been on the course of study in the Faculty of Arts.

The fee for registration is £1.

The Register for the current year contains 4525 Members, and is conclusive of the rights of persons to be Members up to 1st January 1883. By the Universities Elections Amendment (Scotland) Act all candidates for graduation are required to pay the Registration Fee before they can be allowed to appear for graduation.

The Register is printed, and may be obtained from James Thin, 66 South Bridge, price 1s.

The Council meets twice a-year—viz., on the *first Tuesday after the fourteenth day of April*, and on the *last Friday in October*, at one o'clock, "to take into their consideration all questions affecting the well-being and prosperity of the University, and to make representations from time to time on such questions to the University Court, who shall consider the same,

and return to the Council their deliverance thereon." All proposed improvements in the internal arrangements of the University "shall be submitted to the University Council for their consideration." "The Council may appoint a Committee or Committees at one meeting to arrange or prepare business for a future meeting, but it cannot delegate any of its functions to a Committee, or act by means of a Committee."

The Chancellor is by statute President of the Council; and in his absence, the Rector; whom failing, the Principal or Senior Professor present, with a deliberative and also a casting vote.

The General Council of this University, and the General Council of the University of St Andrews jointly, return a Member of Parliament.

The Chancellor and one of the Assessors in the University Court are elected by the Council.

The Chancellor holds office for life, and the Assessor for four years from the date of Nomination.

The next appointment of an Assessor will take place at the meeting of the General Council in April 1886, and a list of those previously appointed will be found at p. 10.

Members of General Council are entitled to the use of the University Library on payment of an annual fee of 10s. 6d., or they may compound for such annual fee by a present payment of £5, 5s.

MATRICULATED STUDENTS.

Matriculated Students may be members of any of the four Faculties. They have the privilege of electing the Rector of the University. In case of an equality of votes, the Chancellor, or failing him, the Principal, has the casting vote. Students also enjoy the right of admission to the University Library, and on certain days to the Museum of Natural History. Their names are preserved in the General Album, which is the legal register of attendance at the University. Students are subject to the ordinary discipline of the Professors, and of the Senatus Academicus.

University Matriculation consists in a Student signing the Sponsio Academica by entering his name in the General Roll of

Students of the University, and in paying a fee of £1 for one year, commencing in October, or a fee of 10s. for a Summer Session, commencing in May. Matriculation is necessary before a Student can enter any of the Classes in the University, or any Extra-Academical Classes which are intended to qualify for graduation.

The following is the Sponsio Academica signed by students on matriculating—

QUOD FAUSTUM FELIXQUE SIT. A. D.——

Ego Academiae Edinburgenae Discipulus sinceré ac sancté promitto quod et syngraphâ hac meâ in perpetuum testatum cupio, mihi ante omnia cordi ac curae futurum verae pietatis studium; me etiam in assuetis academici curriculi studiis sedulum fore, ut adolescentem bene institutum decet; et quamdiu in illo curriculo permansero praeceptoribus omnibus morigerum memet praestiturum, nec ullius dissidii aut tumultus clam palamve vel auctorem vel participem futurum, et per reliquam vitam Academiam ipsam grato et benevolo animo prosecuturum, idque omnibus officiis pro facultate mea et occasione data testaturum esse.

MATRICULATIONS IN SUMMER SESSION, 1881:

I. Faculty of Arts	16	
II. Faculty of Law	8	
III. Faculty of Medicine	200	
	——	224

MATRICULATIONS IN WINTER SESSION, 1881-82:

I. Faculty of Arts	1027	
II. Faculty of Divinity	94	
III. Faculty of Law	457	
IV. Faculty of Medicine	1445	
	——	3023

Total number of Matriculations from May 1881 to May 1882 3247

UNIVERSITY EXAMINERS.

FOR DEGREES.*

I. *Faculty of Arts.*—The Examiners for the Degree in Arts are the seven Professors whose classes are embraced in the Curriculum; and, in addition, three persons (Members of a Scottish University Council, but not Professors or Assistant Professors in any Scottish University) appointed (each for three years) by the University Court, in whose appointment regard must be had to their eminence respectively in Classical Literature, Mental Philosophy, and Mathematical Science. No Examiner can be re-appointed till he has ceased to hold office for a year. The Annual Salary of each of the three additional Examiners is £80, voted by Parliament. Candidates for Honours in Natural Science are examined by the Professors of Natural History, Chemistry, Botany, and Geology. The appointments of additional Examiners in the Faculty of Arts have been as follow :—

Classical Literature.

James Donaldson, M.A. . . .	1861
James Clyde, M.A., LL.D. . . .	1864
John Kerr, M.A.	1867
William Millar Nicolson, M.A. . .	1870
John Marshall, M.A. . . .	1873
Hugh Wilson, M.A.	1876
John Marshall, M.A., . . .	1879

Mental Philosophy.

John Downes, M.A.	1861
Alexander Nicolson, M.A. . .	1865
Thomas M. Lindsay, M.A. . . .	1868
Alexander Nicolson, M.A. . .	1871
Robert Adamson, M.A. . . .	1874
Rev. William Cunningham, M.A., D.Sc. .	1877
Hugh J. E. Fraser, M.A. . .	1879, 1880

* For Regulations as to time of appointment and Substitutes for absen Examiners, *see* Appendix Nos. VI. VII.

Mathematics.

Balfour Stewart, LL.D.	1861
Rev. Hugh Martin, M.A.	1866
William Lees, M.A.	1869
Robert Walker, M.A.	1872
James Blaikie, M.A.,	1875
R. K. Galloway, M.A.	1878
Alexander Macfarlane, D.Sc.	1881

Engineering.

Thomas Stevenson, C.E.	1876, 1880

II. *Faculty of Divinity.*—The Examiners for the Degree of Bachelor in Divinity are the four Professors of the Faculty, together with two Examiners appointed by the University Court for the term of three years. The appointments of additional Examiners in the Faculty of Theology have been :—

Henry Cowan, B.D.,	1871
William Hastie, B.D.,	1871
David Laird Adams, B.D.,	1874, 1877
Thomas Nicol, B.D.,	1874
Thomas Adamson, B.D.,	1877, 1880
John Patrick, B.D.,	1880

III. *Faculty of Law.*—The Examiners for the Degree of Bachelor of Laws (LL.B.) and B.L. are the six Professors of the Faculty, and two selected by the University Court from those who have graduated in Laws.

W. F. Hunter, LL.B.,	1875
John Kirkpatrick, LL.B.,	1875, 1878
J. M'Kie Lees, LL.B.,	1878
George Readman, LL.B.,	1881
Henry Goudie, LL.B.,	1881

IV. *Faculty of Medicine.*—The Examiners of Candidates for Degrees in Medicine are the Professors in the Faculty of Medicine, and, in addition, twelve persons appointed annually by the University Court, who receive £50 each, voted partly by Parliament. The Preliminary Examination of Candidates for Medical Degrees is conducted by the Examiners in Arts, with some of

the Medical Examiners. The appointments of additional Examiners in the Faculty of Medicine have been as follow:—

James Begbie, M.D.	1862
Douglas Maclagan, M.D.	1862
William Robertson, M.D.	1862
Benjamin Bell, Surgeon	1863
William Seller, M.D.	1865
J. Warburton Begbie, M.D.	1869
William Dumbreck, M.D.	1870
John Chiene, M.D.	1875, 1878
Angus Macdonald, M.D.	1875
James Dunsmure, M.D.	1875, 1880
Hugh Cleghorn, M.D.	1875, 1880
David Ferrier, M.D.	1875
James Dewar,	1875
Dyce Duckworth, M.D.	1875
William M'Intosh, M.D.	1875, 1880
Joseph F. Payne, M.B.	1875
Thomas R. Fraser, M.D.	1875
D. R. Haldane, M.D.	1875
Arthur Gamgee	1875
W. Dittmar, Ph.D.	1877, 1880
Alexander Keiller, M.D.	1878
Thomas Keith, M.D.	1878
T. Lauder Brunton, M.D.	1878
I. B. Balfour, D.Sc., M.B.	1879
B. M. Braidwood, M.B.	1879
Alfred R. Duffin, M.D.	1880
W. S. Greenfield, M.D.	1881
Byrom Bramwell, M.D.	1882
Sidney Coupland, M.D.	1882
J. D. Gillespie, M.D.	1882
William Murrell, M.D.	1882
Richard Caton, M.D.	1882

University Library.

THE Library originated in a bequest, in 1580, by Mr Clement Little, Commissary, Edinburgh, a learned citizen, and brother of the Lord Provost, who left his library to "Edinburgh and the Kirk of God." This library, consisting of about 300 volumes, chiefly theological, was transferred by the Town Council, a few years afterwards, to the University. The University Library was afterwards largely augmented by donations from the Citizens of Edinburgh, and from the alumni of the University, and by the annual contributions of Students when they took the Degree of Master of Arts.

The celebrated Poet, Drummond of Hawthornden, bequeathed his library to the University; and the gift is valuable, both from the eminence of the donor's name, and from the rare specimens of our early literature with which the collection is enriched.

Among the donors may be specified, for the extent and value of their benefactions, Principal Adamson, Dr Robert Johnston, a physician in London; the Rev. James Nairne of Wemyss, in Fife; Dr John Stevenson, Professor of Logic and Metaphysics in the University; and Dr William Thomson, Professor of Anatomy in the University of Oxford. In 1872, the Library received a valuable addition by a donation from J. O. Halliwell, the eminent Shakespearean critic, of a collection of works relating to Shakespeare, formed at great cost by that gentleman. In 1875 a large collection of Persian and Arabic MSS. was presented by Mr J. B. Baillie of Leys. In 1879 the bequest of a valuable collection of MSS. was received from the executors of David Laing, LL.D. In 1880 the collection of works on Economic Science formed by Professor Hodgson were presented to the Library by Mrs Hodgson. In 1882 a valuable collection of works on Sanskrit Literature was presented by the family of Dr John Muir.

The University Library contains about 140,000 printed

volumes, and about 2000 volumes of MSS., many of which are of great interest and value.

The University possesses some valuable pictures and busts, which are kept in the Library and Senate Hall.

The Library Hall, and the suite of rooms connected with it, occupy the south side of the College quadrangle.

The Library is open every lawful day, during the Winter Session from 10 to 4 o'clock, except on Saturdays, when it is shut at 1 o'clock. During the Summer Session the hours for public business are from 10 to 3; on Saturdays, from 10 to 12 o'clock.

There is a READING ROOM in connexion with the Library, open to all Matriculated Students, for purposes of study, and for the consultation of books.

The following Regulations, enacted in 1862, relate to the general management of the Library:—

I. The Librarian has the ordinary Management of the Library, subject to the superintendence of the Library Committee of the Senatus Academicus.

II. The Senatus Academicus annually appoints a Committee of their own number, called the Library Committee, whose duty it is, under the authority and subject to the directions of the Senatus, to take special charge of the affairs and business of the Library. This Committee consists of not less than five members, of whom three are a quorum; and one member at least of the Finance Committee is also a member of the Library Committee.

III. The Librarian and the Assistant Librarians are appointed by the Senatus Academicus, who have the power of suspending or dismissing them, subject to an appeal to the University Court.

IV. All books ordered for the Library are sent direct to the Librarian, and forthwith entered by him in the Catalogue, and noted with distinguishing marks; and no person is allowed to use or borrow any book until it has been entered in the Catalogue, and noted.

V. The Senatus Academicus, or their Library Committee, have power, from time to time, to make provision for the manner in which the ordinary business of the Library, in regard to

borrowing and consulting books, is conducted, by establishing a regular and authentic record of borrowing and returning books on such a system as secures their due return and preservation.

VI. The Librarian is required from time to time to prepare a list, to be submitted to, and adjusted and approved by, the Senatus, and when so adjusted and approved, to be kept by the Librarian, of such books, manuscripts, and other works, as ought not to be lent out of the Library, and which shall not be lent out on any terms; and the Senatus make regulations for allowing access to such works for consultation.

VII. The Librarian is required from time to time to prepare a list, to be submitted to, and adjusted and approved by, the Senatus, and when so adjusted and approved, to be kept by the Librarian, of such works as ought not to be lent out of the Library, except upon special application, and by special permission of the Library Committee ; and the Senatus, from time to time, make general regulations as to the conditions under which such works may be borrowed ; and in addition to such general regulations, the Library Committee may, in each individual case of borrowing such works, impose such special conditions as they may think necessary or expedient : Provided always, that every such special permission, and all such additional conditions imposed by the Library Committee, are entered in the Minute-book of the Committee.

VIII. A general Inspection of the Library of the University, and of the record kept, as above provided by Section V., of the borrowing and returning of books, takes place *annually in the second week of October.*

IX. During the period of the annual Inspection the Library is closed, and all works whatever, and by whomsoever borrowed, must be returned to the Library before the commencement of such period, under a penalty, previously fixed and publicly notified by the Senatus, of not less than one shilling a volume ; and in the event of any volume not being returned before the expiration of one week after the last day of the inspection, the fine is repeated weekly until such volume is returned, or until

a copy of the work of the same edition, and of equal value is, at the expense of the borrower, placed in the Library in its stead : Provided always, that the amount of the fine in the case of works borrowed by special permission as aforesaid, may be fixed either by general regulation of the Senatus, or by special condition imposed by the Library Committee in any individual case.

X. The use of the Library *by persons not being Students of the University* is subject to the following regulations :—

1. Each Member of the Senatus Academicus is entitled to have in his possession, at one time, twenty-five volumes but not more.
2. Each Member of the General Council is, in each year in which he shall have paid a subscription to the Library of ten shillings and sixpence, entitled to have in his possession at one time four volumes, but not more : Provided always, that a payment, instead of such yearly subscription, of a composition of five guineas entitles a person to the like privilege for life. In regard to the use of the Library by Members of the General Council, the year is held to date from the *fifteenth day of October*.
3. In consideration of the Annual payment of five pounds by the Royal College of Surgeons to the University, each Fellow of the College resident within ten miles of Edinburgh, is, in each year in which he pays a subscription of one guinea to the Library of that University, entitled to have in his possession at one time ten volumes, but not more. The College of Surgeons and the members thereof, as such are not entitled, in virtue of any former agreement or otherwise, to any privilege or use of the Library, except as herein as specially provided, and as regards such use of the said Library the year is held to date from the *fifteenth day of October*.
4. Subject always to the provision as to the return of books at the annual period of inspection, every person in each of the above classes is entitled to retain each book for

one month from the date of borrowing, if the book has been borrowed at any time between the *first day of October* and the *thirtieth day of April inclusive*, and for two months from the date of borrowing, if the book has been borrowed at any time between the *first day of May* and the *thirtieth day of September inclusive;* and further, after the expiration of such period of one month or of two months, as the case may be, he is entitled to retain each book until the annual period of inspection, unless notice is received by him from the Librarian, requiring the return of such book, which notice shall be issued on application being made for the same by any person entitled to the use of the Library, or by order of the Senatus Academicus, or of the Library Committee. The form of notice requires the return of the book within a certain short period, to be specified therein, under a penalty of not less than one shilling a volume, if the book be not returned within such period, and after the expiration thereof, under a further penalty of sixpence a volume for each day, as long as the book is not returned, until the amount of the fine exceeds the sum for which the book can be replaced in the Library, such penalties to be also specified in such notice. In the event of the Library possessing more than one copy of the book so applied for, and of all the copies being out of the Library, such notice as aforesaid must be sent to the earliest borrower.

XI. The use of the Library by *Matriculated Students of the University* is regulated as follows :—

1. Every Matriculated Student is entitled to have in his possession two volumes at one time ; and is entitled to retain any book for two weeks from the date of borrowing ; and further, to re-borrow any book for successive periods of two weeks, unless an application for the same shall, in the meantime, have been made by another person entitled to the use of the Library. It is in the power of the Senatus Academicus, if they shall think it expedient, to allow Students, either generally or during

any particular period of the year, to be in possession of more than two volumes at a time.

2. It is in the power of the Senatus Academicus, from time to time, to make such regulations as to a deposit of money by Students borrowing books from the Library, as they may think expedient; and also to regulate the use of the Library by Students in consulting books in the Library itself.

   [Every Student before borrowing books must exhibit his Matriculation Ticket and at least One Professor's Ticket, and deposit £1, after which his name will be enrolled in the Library books.]

3. No certificate of attendance upon a class may be granted by a Professor to any Student without the production of evidence to the Professor that the Student has duly returned all books which he may have borrowed from the Library.

XII. Students enrolled by the University of Edinburgh as attending the lectures of extra-academical teachers in Edinburgh (under the sixth sub-section of the sixth section of Ordinance, No. 8, Edinburgh, No. 3), are entitled to the like privileges in connexion with the Library of that University, and are subject in the same manner to any regulations to be made by the Senatus, as Matriculated Students of the University; and no certificate of attendance on the lectures of any such teacher may be given to any Student so enrolled without the production of evidence to the teacher that the Student has duly returned all books which he may have borrowed from the Library.

XIII. It is in the power of the Senatus Academicus, from time to time, to grant the use of the Library to such extent, and on such conditions, as they may think expedient, to persons for purposes of literary research, and that whether such persons are members of the University or not. But no such privilege can in any case be granted except by minute of the Senatus, specifying the grounds on which the grant is made, and the conditions which have been attached thereto, an extract of which minute must be forthwith transmitted to the University Court.

XIV. All grants of the use of the Library made by the Senatus Academicus, in pursuance of the preceding section, terminate at the annual period of inspection of the Library, but may be renewed under like conditions, if again applied for, on the expiration of that period; Provided always, that the Library Committee may be empowered by the Senatus to renew any such grant until the first meeting of Senatus after the expiration of the annual period of inspection, but no longer.

XV. In the event of any book being lost or injured, while in the possession of a person entitled to the use of the Library, he is liable either to replace the same, or to pay such fine, either as representing the value of the book, or otherwise, as may be fixed by the Senatus Academicus, or by the Library Committee, in the event of their having been empowered by the Senatus to fix the amount of such fines.

XVI. So long as any person remains in possession of a book which he is not entitled to retain, or allows any fine incurred by him to remain unpaid, the right of such person to borrow or retain any books whatever, or to exercise any of the privileges of the Library, is suspended, and remains in abeyance.

XVII. No book can, in any case, be given out of the Library except to the borrower in person, or to some one having written authority from him.

XVIII. On the expiration of the annual period of inspection, the Librarian must report to the Senatus Academicus in reference to the year then ended :—

1. The particulars of every case of admission to special privileges in the use of the Library :
2. The particulars of every case in which a person's right to the use of the Library has been suspended, or is in abeyance :
3. Every case of a book belonging to the Library having been replaced at the expense of a person entitled to the use of the Library :
4. A list of all books belonging to the Library known or found at the time of the inspection to be amissing, or seriously injured :

5. Any other matter which the Librarian may think it of importance to bring under the notice of the Senatus, or regarding which the Senatus may have directed him to report :

and the Senatus is required to forward a copy of the Librarian's Report to the University Court with their remarks.

XIX. At the conclusion of the annual period of inspection, a list is made of all persons who may have failed to return by that time any books borrowed by them, or to pay any fines incurred, along with the names of the books so unreturned, and the amounts of the fines then due ; and this list is exhibited in a conspicuous place in the Library ; and no name may be removed therefrom, until in each case the book or books be returned or replaced, or the fine or fines, which may have become due, be paid.

The following Supplementary Regulations are now in force :—

I. The provision of Sub-section 1 of Section XI. of the above Regulations is limited in its application to the use of the Library by Students who are not Masters of Arts of the University ; and, as regards such Students, it is in the power of the Senatus Academicus, if they think it expedient, to fix a certain longer period than two weeks from the date of borrowing as the period during which they are entitled to retain books, and that either generally or as applicable to any particular portion of the year, as the Senatus may think expedient. Any such extended period, and also the portion of the year to which the same applies, must be specified in the minute of the Senatus authorising the same, and an extract of such minute must be forthwith transmitted to the University Court.

II. Subject to the preceding Regulations, and specially to the Regulations in Sub-section 4 of Section X., the following classes of persons are entitled to the use of the Library, to the extent and under the conditions hereinafter specified, that is to say :—

1. Every person who has retired, or who shall hereafter retire, from the office of Principal or Professor on a retiring allowance, is entitled to have in his possession at one time ten volumes, but not more.

2. Any assistant to a Professor, to whom the Senatus Academicus think it expedient to grant the privilege of the Library, is entitled to have in his possession at one time ten volumes, but not more.

3. The Librarian is entitled to have in his possession at one time ten volumes, but not more ; and any Assistant Librarian to whom the Senatus Academicus think it expedient to grant the privilege of the Library, is entitled to have in his possession at one time four volumes, but not more : Provided always, that all books borrowed by the Librarian, or by any such Assistant Librarian as aforesaid, are duly and regularly entered in the ordinary Records of the Library as being so borrowed, in the same manner as books borrowed by other persons.

READING ROOM.

There is attached to the Reading Room of the Library a separate collection of books set apart for the consultation of Students. Printed Catalogues of this collection may be purchased at the price of 3d each.

Any Student wishing to consult books from this collection in the Reading Room of the Library, must insert in one of the slips provided for the purpose, the number of his Matriculation Ticket, his Name and Residence, and the Title of the Book he may wish to consult, and present the slip to the Librarian in attendance. Each separate Book must be applied for by means of a separate slip.

Each slip so presented will render the person who has signed it responsible for the book named upon it. The slip should, therefore, in each case be re-claimed from the Librarian in attendance, when the Book is returned, or whenever the Book applied for is not available.

Every volume must be returned by the person who has used it, before he leaves the Reading Room. Students are forbidden to leave on the table the Books used by them ; they are required to place them in the Librarian's hands, and to demand back their slips. To prevent confusion, this should be done a few minutes

before the close of each hour by those who have to attend classes at the commencement of the next hour.

In addition to the books in the Reading Room collection, each Student is allowed to consult in the Reading Room Two Volumes daily from the General Library, provided always that he has handed in on the previous day, before 2 o'clock, P.M., slips in application for these two works. The same rules will then apply to such books as to books consulted from the Reading Room collection.*

No conversation, or noise likely to disturb those reading, is permitted in the Reading Room.

The Librarian holds the responsibility for the management of the Reading Room. Any point of difficulty that may arise, must be referred to him for decision, or, if necessary, through him to the Library Committee.

Every Student, on first applying for books in the Reading Room, must exhibit his Matriculation Ticket for Registration in the Book kept for the purpose in the room.

All books taken into the Room from the General Library shall be carefully examined and returned to their place in the General Library each day. No books shall be issued from the General Library, for use in the Reading-Room, after 3.20 in Winter or after 2.30 in Summer; and all books from the General Library shall be given up in the Reading-Room at 3.45 in Winter and 2.45 in Summer.

THEOLOGICAL LIBRARY.

This Library was founded in 1698 for the special use of Students in Theology. It contains above 10,000 volumes. The management, by the amended constitution (1863), is vested in a Committee of six Curators, chosen by ballot, by the Cives of the Library, from their own number. No Civis can be elected a Curator unless he be at least in the second year of his atten-

* The regulations laid down in this paragraph are held in abeyance until the Reading Room Collection shall be complete.

dance at the Divinity Hall. One-third of the Curators go out annually by rotation. The election takes place in the second week of December. The Curators elect one of their own number to be Treasurer. The Curators and Treasurer report the state of the funds, &c., to the Cives, the Theological Faculty, and the Senatus Academicus. The powers and privileges which formerly belonged to the Professor of Divinity are now given to the whole Theological Faculty. The books purchased are selected by the Theological Faculty. The purchase of books is restricted to theological works, and works subservient to theological study. The Professor of Divinity, who is *ex officio* Honorary Librarian, appoints annually an acting Librarian. None are Cives of the Theological Library but Students of Divinity, or those who have been Students of Divinity at this or at some other Scottish University. Students of Divinity attending this University are admitted as Cives on paying each a contribution of two shillings and sixpence per annum; and those who have been Students of Divinity at this or at some other Scottish University are admitted on paying each a contribution of five shillings per annum. But no person who, during any year or years of his attendance at the Divinity classes of the University of Edinburgh, may have failed to enter as a Civis, is in any after years allowed to do so, until he has paid up the arrears of two shillings and sixpence for each of the years of his attendance as a Student of Divinity at this University in which he has failed to pay the said annual contribution. No books can be kept out of the Library longer than two months.

Cives who have completed their Theological Curriculum will not be entitled to more than two volumes, unless residing within ten miles of Edinburgh. Exemption from this rule can only be obtained by the consent of the Curators.

PORTRAITS AND BUSTS IN THE SENATE HALL, LIBRARY, AND COURT ROOM.*

I.—*Portraits of Principals, Professors, and others, in Senate Hall.*

1. Robert Rollock, first Principal of the University (1585-1599).
2. Andrew Cant, Principal of the University (1675-1685).
3. William Carstares, D.D., Principal of the University (1703-1716), by Aikman.
4. William Robertson, D.D., Principal of the University (1762-1793), by Raeburn.
5. Adam Ferguson, LL.D., Professor of Moral Philosophy (1764-1785), by Raeburn.
6. Andrew Dalzel, M.A., Prof. of Greek (1772-1805), after Raeburn.
7. John Robison, LL.D., Professor of Natural Philosophy (1774-1805), by Raeburn.
8. James Finlayson, D.D., Professor of Logic and Metaphysics (1786-1808).
9. John Playfair, M.A., Professor of Mathematics, and afterwards of Natural Philosophy (1785-1819), by Raeburn.
10. Thomas Brown, M.D., Professor of Moral Philosophy (1810-1820).
11. Andrew Duncan, M.D., Senior Professor of Institutes of Medicine (1789-1819).
12. George Husband Baird, D.D., Principal (1793-1840), after Geddes.
13. Sir John Leslie, Professor of Natural Philosophy (1819-1833), after Sir David Wilkie.
14. John Bruce, Professor of Logic and Metaphysics (1774-1786), after Raeburn.
15. John Donaldson, Professor of Music (1845-65).
16. John Knox (1505-1572).
17. George Buchanan (1506-1582). 2 Portraits.
18. John Napier of Merchiston, Inventor of Logarithms (1550-1617).
19. James Thomson, Poet (1700-1748).
20. Hugh Blair, D.D., Professor of Rhetoric (1762-84), by Martin.
21. Robert Graham, M.D., Prof. of Botany (1820-1845), by Colvin Smith.
22. J. H. Balfour, M.D., Professor of Botany (1845-78), by Sir Daniel Macnee.

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* In order to honour and perpetuate the names of the individuals who have founded Scholarships, Bursaries, and new Chairs in the University, the Senatus Academicus has made arrangements for placing Busts or Portraits of them in the Library and University Court Room.

Several portraits and busts are expected in the course of the present Session.

Regarding as Benefactors the eminent Professors who have elevated the character of the University by their writings or discoveries, the Senatus is anxious to procure Portraits or Busts of James and David Gregory, Colin Maclaurin, Matthew Stewart, Dr Cullen, Joseph Black, Dr James Gregory, Dr Monro, *secundus*, Dr Monro, *tertius*, Dr Alison, Dr Chalmers, Sir Charles Bell, Lord Woodhouselee, Dr Thomas Charles Hope, Professor Miller, Professor Ross, Professor Aytoun, Professor Macdougall; and the Senatus is anxious for the assistance of the friends and admirers of these gentlemen in obtaining them.

II.—*Portraits and Busts of Principals and Professors in Library.*

PORTRAITS.

1. John Lee, D.D., LL.D., M.D., Principal of the University (1840-1859), by Sir John Watson Gordon.
2. Alexander Brunton, D.D., Professor of Hebrew and Oriental Languages (1813-1848), by Sir John Watson Gordon.
3. John Wilson, Professor of Moral Philosophy (1820-1853) by Scott Lauder.

BUSTS.

1. John Lee, D.D., LL.D., M.D., Principal, &c., by Slater.
2. Alexander Monro *(primus)*, M.D., Professor of Anatomy (1720-1754), by Flaxman.
3. William Cullen, M.D., Professor of Chemistry (1755-1790), by Gowans.
4. John Playfair, M.A., Professor of Mathematics, and afterwards of Natural Philosophy (1785-1819), by Chantrey.
5. John Thomson, M.D., Professor of General Pathology (1831-1842), by Steell.
6. Thomas Charles Hope, M.D., Professor of Chemistry (1795-1844), by Steell.
7. Macvey Napier, M.A., Professor of Conveyancing (1825-1847), by Slater.
8. George Dunbar, M.A., Professor of Greek (1805-1852), by Slater.
9. James Pillans, LL.D., Professor of Humanity (1820-1863), by Slater.
10. Robert Jameson, Professor of Natural History (1804-1854), by Steell.
11. Edward Forbes, Professor of Natural History (1854-55), by Steell.
12. Robert Blair, Professor of Practical Astronomy (1786-1834).
13. Dugald Stewart, Professor of Moral Philosophy (1775-1810), by Joseph.
14. Sir John Leslie, Professor of Natural Philosophy (1819-1833), by Steell, after Joseph.
15. Andrew Duncan, senior, Professor of Institutes of Medicine (1789-1819), by Slater.
16. Sir William Hamilton, Bart., Professor of Logic and Metaphysics (1836-1856), by Brodie.
17. John Goodsir, Professor of Anatomy (1846-1867), by Brodie.
18. Sir Robert Christison, Bart., Professor of Materia Medica, by Brodie.
19. Robert Lee, D.D., Professor of Biblical Criticism (1847-1860), by Brodie.
20. George James Allman, Professor of Natural History (1855-1870), by Hutcheson.
21. Sir Jas. Y. Simpson, Bart., Professor of Midwifery (1840-1870), by Brodie.
22. James Syme, Professor of Clinical Surgery (1833-1869), by Brodie.
23. John Schank More, Professor of Scots Law (1843-1861).

24. Andrew Brown, Professor of Rhetoric (1801-1835).
25. J. H. Bennett, Professor of Institutes of Medicine (1848-1874), by Brodie.
26. Thos. Jackson Crawford, D.D., Professor of Divinity (1859-1876), by Brodie.
27. Thomas Laycock, M.D., Professor of Practice of Medicine (1842-55), by Clark Stanton.
28. W. B. Hodgson, LL.D., Professor of Political Economy (1871-1880), by Brodie.
29. W. R. Sanders, M.D., Professor of Pathology (1869-1881), by Brodie.
30. H.R.H. the Duke of Edinburgh, by Steell.
31. The Hon. Lord Rutherford, by Theed.
32. A. H. Rhind of Sibster, by Brodie.
33. Sir John Watson Gordon, after Park.

III.—*Portraits in Court Room.*

1. Sir David Baxter of Kilmaron, Bart., by Sir John Watson Gordon.
2. J. Stewart Hepburn, Esq., of Colquhalzie, by Colvin Smith.
3. Sir John M'Pherson, late Governor-General of India, after Reynolds.
4. George Heriot, after the original in Heriot's Hospital.
5. W. Patrick, Esq., of Roughwood, after Colvin Smith.
6. George Parker Bidder, Esq., by Alfred Dever.
7. The Right Honourable John Inglis, Lord Justice-General, by Sir J. Watson Gordon.
8. Sir William Fettes, Bart., after Raeburn.
9. General John Reid, Founder of the Chair of Music (1735-1803).
10. Lord Provost Elder, by Raeburn.
11. Daniel Ellis, Esq., by Colvin Smith.
12. Captain Thomas Drummond, by Pickersgill.
13. Sir Roderick Impey Murchison, Bart., by Pickersgill.
14. John Muir, LL.D., D.C.L., by Lorimer.

TORRY FINE ARTS COLLECTION.

Sir James Erskine of Torry, by a Will, dated April 1834, bequeathed to the University his Pictures, Bronzes, and Marbles, "for the purpose of laying a foundation for a GALLERY for the encouragement of the Fine Arts." The collection is at present temporarily deposited in the National Gallery, until funds can be obtained for its suitable display in the College, and for carrying more fully into effect the intentions of the testator.

The Pictures, forty-six in number, which are in the finest preservation, have been collected with much judgment, as choice specimens of the works of different Masters, especially in the Flemish and Dutch Schools. The Marbles, seventeen in number, and twenty-three Bronzes, have been chosen with a correct appreciation of the merits of this department, and reflect credit on the taste and public spirit of Sir James Erskine.

Museums.

I. THE MUSEUM OF NATURAL HISTORY.

THE Museum of Natural History was established in 1812 in connexion with the University. It contains Zoological, Geological, and Mineralogical Collections. The greater portion of it was formed by the exertions of Professor Jameson, who was fifty years Professor of Natural History and Regius-Keeper of the Museum.

In 1854 it was transferred by the Town Council, at that time the Patrons of the University, to Government, under whose control it has since continued. The whole of the collections have been now removed from the old rooms hitherto occupied by them in the University to the Natural History Department of the New Museum of Science and Art. They are available for the educational purposes of the University, and are freely accessible to the Students attending the Natural History Class.

II. THE ANATOMICAL MUSEUM.

This Museum was founded in 1800 by Dr Monro, *secundus*, who presented his own Anatomical Collection, and that of his father, to the University, "to be used by his future successors in office for the purpose of demonstrating and explaining to the Students the structure, physiology, and diseases of the human body." In the year 1859, Sir David Monro, M.D., presented a considerable collection of anatomical preparations, which had been formed by his father, Dr Alexander Monro, *tertius*. Numerous additions were also made to the Museum by the late Professor Goodsir, more especially in the department of Comparative Anatomy, and on his death the Senatus Academicus

purchased from his representatives, his Private Museum, which has been added to the Collection. The Museum now contains several thousand specimens in illustration of Human Anatomy, both normal and pathological, and of Comparative Anatomy.

The Conservator will be glad to receive contributions of rare and interesting specimens from Graduates and former Students of the University.

Provision is being made in the New Buildings of the University for a large Anatomical Museum, and it is believed that the collection may be transferred to it in the course of the next year.

Conservator of the Museum, the Professor of Anatomy; Assistant-Conservator, Mr James Simpson. The Museum is open on Tuesdays, Thursdays, and Fridays, from 2 to 4 o'clock.

III. CLASS MUSEUMS.

There are Museums in connexion with the classes of Natural Philosophy, Materia Medica, Midwifery, and Botany, and Professor Geikie has fitted up a Museum for the use of the class of Geology. There is also attached to the Chair of Music a Museum, containing many interesting objects.

The Botanic Garden.

THE Royal Botanic Garden, Inverleith Row, is connected with the University, in so far as the Professor of Botany delivers his Lectures in the Class-room in the Garden. It extends to 27 acres, and contains an extensive range of Greenhouses and Hothouses, with a large Palm-house 70 feet high, 96 feet long, and 57 feet broad. There is an arrangement of British plants according to the Natural System; a general collection of hardy plants of all countries, according to the same system; and a series of medicinal plants, of which a Catalogue has been printed. There is also a collection of European plants, according to the Linnean System, and an extensive Pinetum.

Within the last few years the mansion-house and policy of Inverleith have been acquired by the City Corporation and H.M. Board of Works from the Fettes Trustees and C. H. Rocheid, Esq. of Inverleith. Inverleith House now forms the official residence of the regius keeper of the Botanic Gardens, while the grounds, extending to about 30 acres, are being converted into an Arboretum or general collection of forest trees.

Students have ample facilities for studying the plants in the Garden. There is also a Library in a room adjoining the Herbarium.

The Botanical Museum is open at all times to Students, and the specimens contained in it are used for illustrating the Lectures. The University Herbarium is kept in the large hall at the Garden, and it can be consulted under the direction of the Professor or the Curator.

In this Herbarium the plants are arranged geographically, so as to enable Students to examine the Flora of different countries. There is a general arrangement of flowering plants, illustrating the orders and genera of the whole globe. There is also a general arrangement of cryptogamic plants. There are special collections of British plants, and of medicinal and economical plants.

The Botanic Garden is open daily during the summer, from 6 A.M. to 6 P.M.

A Guide to the Garden and a List of Medicinal and Poisonous Plants, cultivated in the Garden, have been published. Both of these may be had at the Garden.

Synopses

OF THE COURSES IN THE CLASSES 1881-82.

—o—

CLASSES IN THE FACULTY OF ARTS OR OF LITERATURE AND PHILOSOPHY.

The Curriculum in Arts.*

THE ordinary Curriculum in the Faculty of Arts with a view to a Degree, extends over FOUR WINTER SESSIONS, and comprehends attendance on all the Classes enumerated in No. I. of the *Regulations for Graduation in Arts.*

By No. II. of the *Regulations,* Students who pass an Entrance Examination in Latin and Greek, sufficient to satisfy the Faculty that they are qualified to be admitted to the Higher Classes of Latin and Greek, may complete the Curriculum in Arts, with a view to Graduation, within THREE WINTER SESSIONS, in terms of that Regulation; and Students who pass the Entrance Examination in Mathematics, may dispense with a Second Session of attendance at the Mathematical Classes.

Students who desire, in accordance with *Regulation* No. II., to be freed from a Second Session of attendance in the *Latin and Greek Classes,* in order that they may thus be enabled to complete the Curriculum in Arts, with a view to a Degree, within Three Winter Sessions, must present themselves for Examination in Latin and Greek at the *commencement* of the FIRST SESSION of their attendance in the University.

Students who, in accordance with the same Regulation, desire exemption from a Second Session of attendance in *Mathematics,* must also present themselves for examination at the *commencement* of their FIRST SESSION.

For the subjects of Examination in Latin, Greek, and Mathematics, see under *Entrance Examination for Curriculum of Three Sessions,* page 99.

* The expense, for Class Fees, Matriculation, &c., of the regular Course in Arts may be estimated at about £10, 10s. in each Session.

The names and schools of those who pass these Entrance Examinations in Classics and Mathematics are annually published.

ORDER OF STUDY IN THE FACULTY OF ARTS.

It is particularly recommended by the Faculty—

1. That in a Curriculum of Four Sessions, the Junior Classes of Humanity, Greek, and Mathematics, or any two of them, be attended in the *First* Session.

*** *Students who attend the Junior Mathematics, in their First Session, along with the Junior Humanity and the Junior Greek, may obtain a dispensation from attendance in the Junior Humanity from* 12 *to* 1 *o'clock.*

2. That Natural Philosophy be attended along with, or at any rate not before, one of the Mathematical Classes.

3. That in a Curriculum of Four Sessions, the Junior Class of Logic and Metaphysics be attended in the *Second* Session, or (alike in a Curriculum of Four, and one of Three Sessions) *at all events in a Session preceding that in which the Class of Moral Philosophy is attended.*

A. C. FRASER, *Dean.*

—*o*—

I. HUMANITY—(Latin.)

PROFESSOR SELLAR.

Junior Class—12 to 1 and 2 to 3.

The work of the Class consists of—

1. Daily readings and explanations of parts of Virgil, Horace, Ovid, or Tibullus, Livy, Sallust, and Cicero;—

2. Lectures on Roman History, and occasional prelections on Terence, or some other Latin poet;—

Books recommended—Merivale and Puller's School History of Rome, Ramsay's Elementary Manual of Roman Antiquities, Roby's School Latin Grammar, Arnold's Latin Prose, edited by Dr Bradley.

3. Exercises in Latin Prose Composition;—

4. Written Examinations, held four times in the course of the Session.

Senior Class—10 to 11.

The work of the Class consists of—

1. Readings and explanations of parts of Virgil, Horace,

Juvenal or Plautus, Cicero (*Letters*, or *Speeches*), Tacitus (*Annals*, or *Histories*);—

2. Lectures on Roman Literature and History, and Prelections on some Latin author;—

3. Exercises in Latin Prose, and voluntary Exercises in Latin Verse;—

4. Written Examinations—partly on the Books read and the Lectures delivered in the Class, partly on Books and portions of Roman History prescribed for voluntary reading.

Books recommended—Merivale's General History of Rome; Cruttwell's History of Latin Literature; Roby's School Latin Grammar, or Larger Grammar.

*Third Class**—2 to 3.

The third Latin Class meets every alternate year. It is intended to assist the studies of Candidates for University Scholarships and Honours in Graduation.

The work of the Class consists of—

1. Readings and explanations of some of the more difficult Latin Authors, such as Tacitus, Lucretius, Plautus, &c.;—

2. Lectures on Roman History and Literature, chiefly in connexion with the Authors read in the Class;—

3. Essays on questions arising out of the Lectures or Books read, and Exercises in Latin Prose Composition;—

4. Written Examinations on the work done in the Class, and on subjects prescribed for voluntary reading.

II. GREEK.

PROFESSOR BLACKIE.

First Class—9 to 10 and 1 to 2.

Some easy Greek prose writer, as Xenophon, Lucian, or Cebes; Homer; Daily Exercises in Greek Prose Composition

* This Class will not meet in Session 1882-83.

and Conversation; Description of objects in Greek; Clyde's Greek Syntax; Blackie's Greek Dialogues.

Second Class—11 to 12.

Plutarch, Thucydides, Herodotus or Lucian; a Play of Euripides Æschylus or Sophocles; Homer; Exercises in Greek Prose Composition. Expositions or Lectures once a week.

Third Class—2 to 3.

Aristotle, Ethics and Politics. Lucian, Hermotimus. Greek Composition.

III. MATHEMATICS.

PROFESSOR CHRYSTAL.

First Class—12 to 1.

Theory of Arithmetic; Plane Geometry equivalent to Euclid, Books i., ii., iii., iv., and vi., (in the lectures the arrangement of the *Syllabus of Plane Geometry*, prepared by the Association for the Improvement of Geometrical Teaching, is followed more or less closely); Solid Geometry, equivalent to Euclid, Book xi.; Geometrical Conic Sections; and Elementary Algebra.

Second Class.—10 to 11.

Algebra, including the elements of the Theory of Equations, and of Determinants; Plane Trigonometry; Conic Sections, treated geometrically and analytically; and the Elements of Modern Geometry.

Third Class.—9 to 10.

On Mondays, Wednesdays, and Fridays—Higher Algebra, Analytical Geometry, Differential and Integral Calculus, Calculus of Finite Differences.

Additional lectures on Quaternions, and other special subjects may be given occasionally.

Tutorial Classes.—In addition to the ordinary class lectures in the First and Second Classes, occasional lectures are given by the Class Assistant. The attendance on these is voluntary, and the time is devoted to the repetition of parts of the class lectures and to the working of examples.

Home Exercises are prescribed weekly in all the classes.

Written Examinations on the class lectures are held monthly during the Session. The class honours are determined solely by these examinations.

Text-Books.—As a rule *special* text-books are not prescribed; but the student is recommended to select from the following list :—

Geometry. — Wilson's Elementary Geometry, or Todhunter's or Playfair's edition of Euclid's Elements.

Algebra.—Kelland, or Todhunter.

Solid Geometry and Conic Sections.—Wilson.

Trigonometry. — Todhunter (smaller or larger treatise) or Snowball.

Analytical Geometry.—Todhunter's or Turnbull's Analytical Conic Sections ; and Dyer's Exercises in Analytical Geometry. Students intending to take the Third Class are recommended to get Salmon's Conic Sections.

Higher Algebra and Theory of Equations, etc.—Todhunter's, or Burnside and Panton's, Theory of Equations ; Thomson's Introduction to Determinants ; and Salmon's Higher Algebra for those who mean to read for Mathematical Honours.

Differential and Integral Calculus.—Williamson's Treatises.

LOGIC AND METAPHYSICS.

PROFESSOR CAMPBELL FRASER.

Junior Class.

The Junior course, at *one* o'clock, comprehends lectures on Logic and Psychology :—

I. LOGIC.—(A.) *Formal*, or the criteria of Verbal Consistency in Discursive Thought,—including the extent and content of Concepts ; the forms of Proposition and Syllogism, with the laws of Definition and Division ; the relative Fallacies.—(B.) *Material*, or the criteria of Experiential Proof in the applications of Discursive Thought,—including the principles of Evidence

which determine the scientific interpretation of Nature by Induction; the rules of Historical Evidence which regulate the credibility of human Testimony and of Authority; inductive Fallacies and the causes of Error in questions of experience.

II. PSYCHOLOGY.—(A.) *General*, or an account of the Constitution of Human Nature—(*a.*) as spiritual, or introspectively revealed—Metaphysical Psychology; and (*b.*) as organic, or discoverable by observation—Physiological Psychology.—(B.) *Special*, or an examination of the elements and faculties of Intellect implied in the growth and constitution of Human Knowledge :—(*a.*) Perception of external things in Sense ;—(*b.*) Memory and Imagination under laws of Mental Association ;—(*c.*) Discursive or Inferential Thinking in induction and deduction ;—(*d.*) Intuitive Reason and Rational Faith.

Essays are proposed, and Written as well as Oral Examinations are held in connection with the Lectures. The Professor's "Selections from Berkeley" is used for exercise in psychological analysis. Jevons's "Elementary Lessons in Logic" may be read, as previous preparation, by those who intend to join the Class, and Fowler's "Deductive Logic" and "Inductive Logic," in connection with the work of the Class.

Senior or Advanced Class.

III. METAPHYSICS OR PHILOSOPHY.—The course in the Junior Class is introductory to lectures in the Advanced Class on Metaphysics and the History of Philosophy, especially the modern developments of Scepticism, Empiricism or Agnosticism, and Trancendentalism, given on Mondays and Wednesdays, at *three* o'clock. Books proposed for Honours at graduation are critically explained in connection with these lectures. "Bruce of Grangehill and Falkland's Prize," is given annually as the highest honour in the Class.

The "Vans Dunlop Scholarship in Logic and Metaphysics," of about £100 a year, tenable for three years, awarded in April 1882, will be again competed for in 1885. (*See* SCHOLARSHIPS IN ARTS.)

V. MORAL PHILOSOPHY.

PROFESSOR CALDERWOOD.

Ordinary Class.

The following are the subjects embraced in the Course of Moral Philosophy :—

INTRODUCTION.—Province and Aim of Moral Philosophy.

1. PSYCHOLOGY OF ETHICS.—Knowledge of Moral Distinctions ; the Moral Faculty ; Impulses to Action ; Restraints upon Action ; the Will ; Moral Sentiments Accompanying Moral Judgments and Moral Actions ; the Disorder of Moral Nature.

2. METAPHYSIC OF ETHICS.—The Being of God ; His Attributes ; His Moral Government ; the Foundation of Virtue ; the Relation of Divine Sovereignty to Free-Will ; the Relation of Human Desire to Divine Sovereignty ; the Origin of Evil ; the Immortality of the Soul.

3. APPLIED ETHICS.—Man's Position in the World ; Guidance of Man as an Individual ; Laws Regulating the Formation of Moral Character ; Guidance of the Individual as a Member of Society ; Inferential Maxims of Moral Life ; Guidance of the Community ; Natural Religion.

4. THE HISTORY OF MORAL PHILOSOPHY.—The Rise of Philosophy ; Distinction of Moral from Intellectual Philosophy ; Development of Systems of Moral Philosophy in Ancient and Modern Times, with their relations to General History.

The Course includes lectures, oral and written examinations, and essays.

Text-Books.—The Professor's "Handbook of Moral Philosophy," and Kant's "Metaphysic of Ethics."

Books recommended for Reading.—Zeller's "Socrates and the Socratic Schools," and "Stoics, Epicureans, and Sceptics ;" Sir Alexander Grant's "Ethics of Aristotle," and Macintosh's "Dissertation," Price's "Principal Questions in Morals," Reid's "Active Powers," Mill's "Utilitarianism," and Herbert Spencer's "Data of Ethics."

Advanced Class.

This Class is intended for those who have gone through the ordinary course in Moral Philosophy, and wish to carry their studies further.

The subjects of study are the following:- -The Ethical System of Socrates as presented in Xenophon's "Memorabilia," and in Plato's "Protagoras" and "Apologia." The Moral System of Plato as developed in the "Republic," and other Dialogues. Aristotle's "Nicom. Ethics." The rise of Modern Philosophy; the "Method and Meditations" of Des Cartes; Spinoza's "Ethics;" Kant's Ethical System; the place of Moral Philosophy in Hegel's Theory; the development of Utilitarianism.

VI. NATURAL PHILOSOPHY.

PROFESSOR TAIT.

ORDINARY CLASS.

The subjects embraced in the Course of Natural Philosophy are the following :—

1. Properties of Matter—including Inertia, Gravitation, and Molecular Forces.
2. Abstract Dynamics—including Kinematics, Statics and Kinetics of Solid, Liquid, and Gaseous Bodies, with their applications.
3. Sound, and Wave-propagation in general.
4. Heat, with its application to the Steam-Engine, &c.
5. Light (Geometrical and Physical Optics).
6. Electricity, including Frictional and Voltaic Electricity, Thermo- and Magneto-Electricity, Electro-Dynamics, and Magnetism, with their practical applications to the Telegraph, &c.
7. Conservation of Energy.
8. Plane and Physical Astronomy.
9. Meteorology.

Properties of Matter, Abstract Dynamics (commonly called Mechanics), and Conservation of Energy, together with two or three others of the above divisions of the subject, are treated in

detail every Session, the remainder being necessarily discussed in a more superficial manner, as it is impossible to enter at length into all in the course of a single Session.

It is intended that in Session 1882-83, in addition to Sections 1, 2, and 7, Sections 3 and 6 shall form the more detailed part of the Course.

The whole Class is examined at short intervals during the Session upon the subjects already treated in the Lectures; and a prize is given for the best answering. In these examinations no Mathematics are requisite, except the most elementary portions of Arithmetic, Algebra, and Geometry.

In the months of January and March there are special Examinations upon prescribed subjects; and, on these two occasions only, the Class is divided into two parts—the division depending mainly upon the students' proficiency in Mathematics. In the Lower Division, the elements of Algebra and Geometry alone are required; in the Higher Division, Algebra, Geometry, and the Geometry of the Conic Sections, are necessary.

[In former years, the Ordinary Class was arranged in *three* divisions, but the introduction of the Advanced Class (see below) has rendered the highest of these three superfluous.]

The Prizes in each division of the Class are determined by adding the marks obtained in the two sets of Examinations above described. No Student who has obtained a Prize in either Division of the Class can be allowed to compete, in a subsequent Session, for a Prize in the same or in a Lower Division.

The Text-Book for the Course will be Thomson and Tait's "Elements of Natural Philosophy" (Pitt Press, Cambridge, 2nd edition, 1879.) But, as the first volume only has yet been published, for the remainder of the subject the student may consult Balfour Stewart's "Lessons in Elementary Physics," and Tait's "Recent Advances in Physical Science."

Throughout the experimental part of the Course, constant references will be made to Tait's "Sketch of Thermodynamics" (Second Edition, 1877), which has been prepared as a Text-

Book to serve till the second volume of Thomson and Tait's "Elementary Treatise on Natural Philosophy" is published.

The special Examinations in January 1883 will be on the following subjects :

Higher Division.

Newton's "Three Sections" (Goodwin's Course of Mathematics," Frost's "Newton," or any good edition of the *Principia*).

Lower Division.

Herschel's "Astronomy," in Lardner's Cyclopædia, omitting the chapter on Perturbations. A series of explanatory lectures will be given by the Class-Assistant before the examination.

The subjects for the March Examinations will be announced soon after the commencement of the Session.

Subject of Voluntary Essay to be given in before the end of March 1883—"Contour Lines, and their application in various branches of Physics."

ADVANCED CLASS.

For the benefit of Engineering Students, and of Arts Students wishing to Graduate with Honours in the Department of Mathematics, Professor Tait has opened an Advanced Class. Three lectures are given per week, and the subjects are—

Dynamics (generally),
Theory of Heat,
Theory of Electricity,

all treated specially with regard to their practical applications.

SUMMER CLASS FOR MEDICAL STUDENTS.

At the request of the Medical Faculty, Prof. Tait, in the years 1875-76, tried the experiment of opening an elementary class of Experimental Physics in the Summer Session, chiefly for Medical Students. The formation of this class is now made conditional upon its being shewn, by the enrolment of at least 50 names during the first week of May, that there is a real demand for a Summer Course of Natural Philosophy on the part of Students who are unable to attend the ordinary Winter Class.

PHYSICAL LABORATORY.

This has been introduced with the view of affording Students a practical knowledge of the construction of, and manner of using, physical apparatus, with the mode of conducting experimental inquiries. The Laboratory is open for five or six hours daily during the Winter and Summer Sessions, under the personal superintendence of the Professor and his Class-Assistant. Fee, £6, 6s. for the Winter Session. It is hoped that, with the valuable collection of apparatus in the Museum, results of real use to science may be obtained.

A practical class, for the instruction of beginners in the elementary processes of measuring Time, Mass, Length, Angle, Force, &c., will be formed in the Winter and also in the Summer Sessions. The course, in each case, will extend over about three months. The fee is £2, 2s. The Professor reserves to himself the right of admitting *free*, to general laboratory work, such members of the practical class as may show special diligence and aptitude.

VII. RHETORIC AND ENGLISH LITERATURE.

PROFESSOR MASSON.

The business of this Class will comprehend—

1. A Course of Lectures on Rhetoric and the Principles of Literature. A portion of this Course will consist of Lectures on Style and the more minute points of English Composition; after which there will be a systematic exposition of the principles and methods of Literature in each of its leading kinds successively, in the following order :—(1.) Historical and Descriptive Literature ; (2.) Expository or Didactic Literature ; (3.) Eloquence and Oratorical Literature ; (4.) Poetry and the Literature of Prose-Fiction. The Course will be illustrated throughout by critical references to important authors, and by examples from their writings.

2. A course of Lectures on the History of English Literature. This course will include a complete chronological survey of British Literature from the earliest times to the present, divided

into periods. Under each period will be furnished a list of all its writers of any note; the lives and writings of the more important or representative poets and prose-writers of each period will be reviewed more at large; and the general aim will be to exhibit the successive movements and variations of our Literature in their connexions with the course of our National and Social History. It will also be so arranged that the Course shall include a view of the history of the English Language, from "Anglo-Saxon," through early English and its Dialects, to present English.

3. Instruction in English Composition, &c. During the greater part of the Session, one of the meetings in each week will be devoted to practical work of various kinds, including examinations, readings by the Students themselves, and brief written exercises to be done by them in the class-room. Subjects will also be prescribed for more extensive Essays to be written at home. There will be Prizes for merit in the Essays, in addition to the other Class-Prizes.

Books Recommended.—Aristotle's "Rhetoric"; Bain's "English Composition and Rhetoric"; Morley's "First Sketch of English Literature"; "Three Centuries of English Poetry"; Morris's "Historical Outlines of English Accidence"; Sweet's "Anglo-Saxon Reader".

VIII. PRACTICAL ASTRONOMY.

PROFESSOR PIAZZI SMYTH.

The Professor of Practical Astronomy is also, by one and the same act of appointment under Her Majesty's hand, Astronomer Royal for Scotland; and has, in consequence, daily duties of a very onerous character, and wholly unconnected with the University, to perform throughout the year in the Royal Observatory, Edinburgh, on the Calton Hill.

Nor has this Chair ever been taken up by the University authorities and made necessary for graduation in any of the Faculties, nor supplied with efficient apparatus, nor found at any time to have a sensible amount of demand for it among the

Students in general of the University. Hence the present Professor Astronomer-Royal, after having voluntarily tried the experiment of giving a course of Practical-Astronomy Lectures, and kept it up for several laborious years, whenever there were only two Students to hear—has limited himself of late to *receiving* (on a day announced in the University Calendar) any matriculated applicants for practical Astronomy, ascertaining in a friendly manner something of their calibre and objects, and then advising or assisting such gentlemen afterwards in their studies, at various periods through the Session, according to circumstances, and hitherto gratuitously. Nor can he now, in the enlarged sphere of his public duties at the Royal Observatory, devote more of his time to extraneous occupations without that Government office committed to his care suffering serious damage.

IX. AGRICULTURE AND RURAL ECONOMY.

PROFESSOR WILSON.

The Course of Lectures comprises two divisions: the first part of the Course treating mainly of the *Principles*, and the second of the *Practices* of Agriculture.

FIRST DIVISION.—History of Agriculture. General purposes of Agriculture; conditions affecting it; and scientific principles on which it is based.

These latter comprise: 1. The *Chemistry of Agriculture* including the Constituents and Analytical Composition of Soils, and of the Cultivated Plants:—The Composition and Physical and Chemical Agencies of the Atmosphere, and of Water:—The Composition and Application of Manures, Organic and Inorganic, Feeding Stuffs, etc.

2. The *Geology of Agriculture*, including the Formation of Soils, their Classification,—Chemical and Physical Characters, and suitability for the Growth of different Crops:—their Economic or Industrial Characters.

3. The *Botany of Agriculture*, including "Our Farm Crops," or Crops cultivated for Food and for industrial purposes.—

Cultivation of Forest Trees.—Formation and Management of Plantations, &c.

4. The *Physics of Agriculture*, including Meteorology, or the Laws of Climate :—Light, Heat, &c., as influencing Plant Life.

SECOND DIVISION.—The *Mechanics of Agriculture* and their application to the different descriptions of Machines, Implements and Labour required on a Farm. Steam Tillage. Sequence of Agricultural Operations. Economical Division of Labour. Rotations of various districts discussed and explained. Improvements of the Soil by Draining, Manuring, Liming, &c. Live Stock.

The *Economics of Agriculture*. Farm Engineering and Construction. Agricultural Policy. General Management and Improvement of Landed Property.

X. MUSIC.

PROFESSOR SIR HERBERT OAKELEY.

1. Lectures given will be on some of the following subjects :—

Harmony ; History and Development of the Art and Science ; various schools and styles of Music ; History and construction of some of the principal Musical Instruments ; the modern Orchestra, &c. ; or on the works of the great masters.

Organ Performances, with instructive remarks or programmes will be given from time to time during the Session.

2. Separate and Individual instruction in Organ or Pianoforte playing given to a certain number of younger Students. To these, the Theory of Music is practically imparted.

XI. SANSKRIT AND COMPARATIVE PHILOLOGY.

PROFESSOR EGGELING.

A.—SANSKRIT LANGUAGE AND LITERATURE.

1. *Junior Class.*—Grammar and Exercises. Easy Sanskrit Texts such as the Hitopadeśa and selections from the Epic Poems. Easy translations from English into Sanskrit.

2. *Senior Class.*—Repetition of Grammar. Translations from English into Sanskrit. Sanskrit Texts such as Kālidāsa's Raghuvanśa or Sakuntalā; Mrichchhakatikā; Manu's Institutes of Law. Selected Hymns of the Rigveda.

3. *Sanskrit Literature.*—A general view of Sanskrit Literature will be given in special Lectures.

B.—Comparative Philology.

A course of lectures will be delivered on the principles of Indo-European Comparative Philology, and the progress of Linguistic Studies; provided that a sufficient number of Students or Matriculated persons be willing to attend the same.

These Lectures (as well as those on Sanskrit Literature) will be free to Students attending either of the Sanskrit Classes.

XII. ENGINEERING (CIVIL AND MECHANICAL).

PROFESSOR FLEEMING JENKIN.

Winter Session.

I. Class of Engineering.—The Object of the Course will be to show the practical application of Science to some branches of Engineering. The Series of Lectures will form a Two Years' Course, so arranged that Students can enter on the Course at the beginning of either year, and should they attend for one year only, will receive instruction in the four following subdivisions of the subject matter :—

1. Applied Mechanics; 2. One Branch of Civil Engineering; 3. One Branch of Mechanical Engineering; 4. A Series of Examples of the Application of Machinery to Manufacturing Purposes.

The following is a Synopsis of the Lectures for the Session :—

1. Principle of Statics; couples; moments of forces, parallel and inclined forces; centre of gravity; moments of inertia.

2. Equilibrium and stability of frames, bracing cords, ribs, and linear arches.

3. Strength of materials, stretching, crushing, breaking, bending, and twisting.

4. Strength of the simpler forms in which materials are used; screws, bolts, studs, rivets, shafts, belts, toothed wheels, brackets, bearings, cranks, ropes, chains, wire, &c.

5. Application of mechanical principles to combined structures, especially to *roofs and bridges.*

6. Principles of Kinetics—Newton's laws of motion—Conservation and transformation of energy.

7. Application of the principles of Kinetics to prime movers, especially to the condensing steam engine.

8. Theory of heat engines.

Four Examinations are held during the Session, and each week, when Examinations are not held, voluntary exercises are given to be worked at home. The questions in these exercises are such as are met with in the practice of Engineering, and being returned annotated and corrected to the Students, form a body of Examples for subsequent reference.

Engineering Works and Factories will be visited by the Class, under the guidance of the Professor.

II. Class of Mechanical Drawing.—Students can attend the Drawing Class between 10 and 1 each day.

The work will be examined and instruction given, at 10 o'clock, after the conclusion of the Engineering Class; the Class will at other times be taught by an Assistant, who will attend from 10 to 1.

The Drawing Class may be attended by Students who are not following the Engineering Class, and especially might be attended with advantage by those Students who propose in subsequent years to attend the Class of Engineering, as it is of much importance to the Student that he should be able readily to understand the diagrams of machinery, and to apply the graphic methods of calculation employed by the Engineer. The examples given to the Students are of a practical character,

consisting chiefly of actual working Engineering Drawings. They are also taught to make Drawings from the details of actual Machines.

Summer Session.

III. PRACTICAL SURVEYING.—A Short Course of Practical Surveying, Levelling, Contouring, and Setting Out, will be given every second year, and will be held in the summer of 1883.

Lectures on the Instruments employed will be delivered during one fortnight in the Class-Room of the University, and these lectures will be followed by a fortnight's practical work in the field. This practical work will require the whole of the Students' time during each day; and hence the number of hours during which instruction is given will correspond to an ordinary course extended over a much longer period.

Course of Study.

The following course of study is recommended :—

1st Year.—Mathematics (1st Class), Geometrical Drawing, Chemistry.

2d Year.—Mathematics (2d Class), Natural Philosophy, Engineering, Mechanical Drawing.

3d Year.—Surveying and Levelling (Summer Session), Natural Philosophy (Advanced Class), Engineering.

If the Student is sufficiently well prepared, the first year's course may be dispensed with, with the exception of Chemistry.

XIII. GEOLOGY AND MINERALOGY.

PROFESSOR GEIKIE.

This Course embraces a system of instruction in the following subjects :—

1. THE HISTORY OF GEOLOGY—an outline of the growth of the science from the time of the early cosmogonies downwards.

2. ASTRONOMICAL GEOLOGY – an account of speculations as to the origin of the earth, and a discussion of the planetary relations of the globe from a geological point of view.

3. PHYSICAL GEOGRAPHY—a description of the parts of the earth,—land, water, air, and of their co-operation in maintaining the life of the planet.

4. DYNAMICAL GEOLOGY—a discussion of the nature and causes of geological changes effected on the surface and within the interior of the earth.

5. MINERALOGY—an account of the physical and chemical characters of minerals, and a systematic description of some of the more important and typical species in the different mineral groups.

6. PETROGRAPHY—a description of the various families of rocks, arranged according to chemical and microscopic analysis, and geological position.

7. GEOTECTONIC GEOLOGY—a description of the geological structure and relations of rock-masses to each other, as in unconformability, overlap, faults, joints, cleavage, metamorphism, &c.

8. PHYSIOGRAPHICAL GEOLOGY—an enquiry into the origin of the present outlines of the earth's surface.

9. PALÆONTOLOGICAL GEOLOGY—an account of the nature and use of Fossils in Geological enquiry.

10. STRATIGRAPHICAL GEOLOGY—the history of the successive geological periods, as based upon the organic remains and lithological features of the various systems and formations of rocks.

The applications of Geology to Engineering, Agriculture, Mining, and other practical pursuits, are described and illustrated.

A small Museum is attached to the Class, exhibiting the characters of minerals and rocks, and the typical fossils of the different formations.

Advantage is taken of the peculiar facilities afforded by the position of Edinburgh for the study of Geology, and short ex-

cursions are made during the Session to places of geological interest in the vicinity, when the class-lectures are illustrated by demonstrations in the field, and practical instruction is given in geological surveying. At the close of the Session, an excursion extending over a week or ten days, is made for the purpose of examining the geological structure of a more distant district. In this way Arran, part of the Grampian Mountains, the Kincardineshire coast-cliffs, the Parallel Roads of Glen Roy, the rocks of Ballachulish, Glencoe, the east of Fife, the shores of the Moray Firth, and other districts have been already visited by the class.

Text-Books—"Text-Book of Geology," by the Professor (Macmillan & Co.); "Elementary Lessons in Physical Geography" (Macmillan's School Class-book Series); Rutley's "Mineralogy" (Murby's Science Class-books). More detailed works of reference, most of which will be found in the College Reading-Room, are recommended for each branch of the lectures.

[NOTE.—The present Professor of Geology and Mineralogy will resign his Chair on 15th May. As the next Course of Lectures will be given by his successor, some modifications may be made in the Synopsis of the Course given above.]

XIV. COMMERCIAL AND POLITICAL ECONOMY AND MERCANTILE LAW.

PROFESSOR NICHOLSON.

The Lectures will follow the order of arrangement of John Stuart Mill's *Principles of Political Economy.*

1. METHODS USED IN ECONOMIC SCIENCE.—Analysis of Fundamental Conceptions, Wealth, Capital, &c.

2. PRODUCTION OF WEALTH.—Division of Labour—Accumulation of Capital—Growth of Population.

3. DISTRIBUTION OF WEALTH.—Socialism—Land Tenure—Wages—Profits—Rent—Trade Unions.

4. VALUE.—Money—Inflations and Depressions of Trade—Commercial Crises—Banking—Free Trade—Foreign Exchanges—Stock Exchange.

5. ECONOMIC PROGRESS.—Effects of Progress on Value, and on the relative Distribution of Wealth.

6. PRINCIPLES OF THE LIMITS OF GOVERNMENT INTERFERENCE WITH INDUSTRY.—Direct and Indirect Taxation—Incidence of Taxes—National Debts—Contracts—Joint Stock Companies—Patents—Copyrights.

Although Mill will be used as text-book, references will be constantly given to previous writers, *e.g.*, Adam Smith and Ricardo, as well as to more recent writers, *e.g.*, Giffen, Bagehot, Cliffe Leslie, Walker, Jevons, Marshall, &c.

XV. THEORY, ART, AND HISTORY OF EDUCATION.

PROFESSOR S. S. LAURIE.

I.—THEORY, OR PHILOSOPHY OF EDUCATION.

End and Idea of Education. Physiology of Man, with special reference to Education. The Psychology of Man, with special reference to Education. The facts and processes of Intelligence. Periods of Intellectual Development. The Process of Moral and Religious, or Ethical, Growth. The Formal and the Real in Education Auxiliaries of the Growth of Mind. General conclusions as to Education as a Science.

II.—ART OF EDUCATION.

The Educative Process from the Ethical point of view. Analysis of the Educative process from the Ethical point of view.

First Section or Step of the Educative Process—KNOWLEDGE. —Materials of Education: these fall generally under the two heads of Real-Naturalistic and Real-Humanistic. METHODICK, *i.e.*, the fundamental principles involved in true acquisition *by* Intelligence; and further, the general principles involved in the discipline *of* Intelligence.

PARTICULAR METHODOLOGY; or the application of Methodick to the teaching of the Real-Naturalistic and to the Real-Humanistic respectively. Method in Object-Lessons, Nature-knowledge, &c., of teaching Geography, Composition, Literature, History, Economics, &c. Method of teaching the disciplinary and formal subjects, Arithmetic, Geometry, Language. Method of teaching the instruments of Knowledge—Reading and Writing.

Second Section or Step of the Educative Process—INSTRUCTION IN GOODNESS.—Training to Goodness. Method applied to Moral Training. Religion in this connection.

Third Section or Step of the Educative Process — THE ACTION OF THE PUPIL UNDER A SENSE OF DUTY.—THE AUTHORITY OF THE MASTER AND OBEDIENCE TO AUTHORITY. —Conditions of a True and Legitimate Authority. Recognition of Authority by the Pupil. Religion in this connection.

Difficulties in the way of Right-Willing; Relation of Right-Willing to Motives; Training to Right-Willing; Consideration of Motives (*a*) The Attractive, (*b*) The Coercive; Punishments, &c. Religion in this connection.

Music: and the Æsthetic in Education.

Gymnastic.

ORGANIZATION OF SCHOOLS.

Kindergarten Schools; Infant Schools; Primary Schools; Secondary Schools; University Schools.

Class-manipulation and subsidiary expedients in teaching.

School-Books, Apparatus, Buildings, &c.

III.—HISTORY OF EDUCATION, OR COMPARATIVE EDUCATION.

Only select portions of this course can be dealt with in any one Session.

1. Education in China. 2. Education of the Hindu Races, 3. The Education of the Ancient Persians. 4. A brief Sketch of Education among the Semitic Races of the Mesopotamian Basin and among the Egyptians. 5. Education among the

Hellenic Races. The educational views of Plato and Aristotle. 6. Education among the Romans. 7. Analysis and exposition of the Institutions of Quintilian. 8. Survey of the History of Education from Constantine to the time of the Reformation. 9. Erasmus and Colet. 10. Luther, Melancthon, and John Sturm. 11. Roger Ascham: Exposition of "The Schole-master." 12. Analysis of Ratichius. 13. of Comenius; Exposition of the *Didactica Magna. Realism and Utility as opposed to Humanism and Culture.* 14. Milton's Educational views. 15. Analysis and exposition of John Locke's "Thoughts on Education," and the "Conduct of the Human Understanding." 16. Rousseau, Basedow, and Campe. 17. Dr Andrew Bell and Joseph Lancaster. 18. Analysis and exposition of Pestalozzi. 19. Jacotot. 20. Fröbel. 21. Jean Paul Richter. 22. Diesterweg. 23. Dr Arnold. 24. Herbert Spencer and contemporary Realism. 25. Sketch of History of Education in Scotland, and its present condition and prospects. 26. Organization and aims of Education in Germany, and a Sketch of the present state of Education in England.

N.B.—*Four Lectures weekly on Theory and Methodology exclusively till the Christmas holidays. Thereafter, two of the four weekly Lectures will be devoted to History. Three written Examinations will be held during the Session, and Three Essays on educational questions called for.*

PRACTICE IN TEACHING.—Those Students who have not been in Training Colleges will have arrangements made for their getting practice in teaching in connexion with one or other of the Normal Schools. Facilities are also given for visiting the principal schools, and acquiring a knowledge of their organization.

Books necessary.—The Professor's "Handbook to Lectures." "Comenius' Life and Educational Writings," by the Professor.

XVI. FINE ART.

PROFESSOR BALDWIN BROWN.

The aim of the course will be to afford to those interested in Art as a branch of general culture, as well as to professional students, the means of becoming acquainted with the main outlines of the theory and history of painting, sculpture, and architecture. No technical knowledge will be assumed on the part of those who attend the classes, and the subjects will be treated from the general point of view, while at the same time the interests of practical students will be consulted by special attention being paid to points of artistic treatment.

No synopsis of the complete course can as yet be issued, and only portions of the subject can be dealt with in any single session. The lectures for 1882-3 will be upon the history of art in Europe from the time of the decline of classical sculpture and painting, special attention being paid to the religious art of Italy and of Northern Europe, and to the influence upon art of the Renaissance. The lectures will be largely illustrated by examples in the shape of casts, drawings, &c., and, at the same time, attention will be directed to those points in the theory of the arts which are naturally illustrated by the periods chosen.

A series of eight essays on subjects treated of in the lectures will be set during the session, and at its close the Cousin Prize, £18, will be awarded to the student who has shown most ability in this branch of the session's work.

XVII. HISTORY.

See under Faculty of Law.

Faculty of Divinity.

CURRICULUM FOR THE MINISTRY IN THE CHURCH OF SCOTLAND.

The Laws of the Church of Scotland require that every Theological Student, who desires to qualify himself for the Ministry, should attend the Class of *Divinity* either during *three full and regular Sessions*, or during *two regular and three partial Sessions*;—and also that he should regularly attend during two Sessions each of the Classes of *Hebrew*, *Ecclesiastical History*, and *Biblical Criticism*.

Entrance Examinations.

(1.) Students, before enrolment *for the first year* of their curriculum with a view to the Ministry in the Church of Scotland, must produce to the Professor of Divinity Certificates of their having satisfactorily undergone an Examination in the subjects embraced in the *Curriculum of Arts*, and also in the Elements of Hebrew Grammar. By Act IX. of General Assembly 1872, it is ordained that this Examination shall be conducted, at each of the four Scottish Universities shortly before the commencement of every Session, by four Examining Committees, consisting of members elected by the adjoining Synods, with Conveners nominated by the General Assembly. *The Convener of the Committee for the University of Edinburgh is the Rev. John Alison, Minister of Newington.* The time of the Committee's meeting and the prescribed subjects of Examination will be timeously advertised in the *Missionary Record* of the Church of Scotland.

(2.) Students, before enrolment at the beginning of *every Session after the first* of their course in Divinity, must produce certificates of their having satisfactorily undergone the Examinations prescribed by their respective Presbyteries. For subjects of Examination prescribed by the *Presbytery of Edinburgh*, see *Appendix*.

Discourses.

Every Student of divinity is required during his curriculum to deliver with approbation *six* Discourses upon subjects prescribed by the Professor of Divinity, viz., a Homily, a Latin Exegesis, a Lecture, a popular Sermon, a Hebrew Exercise on a passage of the Old Testament, and a Critical Discourse on a passage of the New Testament.

The following Regulations have been made by the Faculty of Theology in regard to the delivery of these Discourses. (1.) Students of the *first* year shall give in their *Homily* to the Professor of Divinity not later than 1st February : (2.) Students of the *second* year shall give in their *Latin Exegesis* not later than the 24th December, and shall be prepared to deliver their *Lecture* not later than the 3d January ; (3.) Students of the *third* year shall give in their *Hebrew Exercise* and their *Greek Critical Discourse* not later than the 24th December, and shall be prepared to deliver their *Popular Sermon* not later than the 1st of February.

Attendance at Foreign Universities.

The General Assembly of 1868, with the consent of a majority of Presbyteries, enacted and ordained :—(1.) That all candidates for the ministry shall attend during at least *two sessions* the Theological Classes at one or more of the Universities of Scotland, and shall deliver, with approbation, the Six Trial Discourses required by the Acts of the General Assembly ; and (2.) That any Student who wishes to prosecute the remainder of his Theological Curriculum at any Protestant University or Universities not within the bounds of this Church, shall, before repairing thither, undergo satisfactory examination by the Presbytery with which he is connected, and shall, moreover, satisfy the same Presbytery in regard both to the Classes which he proposes to attend, and to the proficiency he has acquired in the language used in the Foreign University in which he intends to study.

I. DIVINITY.

REV. PROFESSOR FLINT, D.D., LL.D.

The course of study in this class extends over three Sessions. The Subjects of the Lectures during Session 1882-83 will be :— 1. The Mediatorial Work of Christ. 2. The Person and Work of the Holy Spirit. 3. The Church. 4. Religious Certitude and Evidence.

Lectures will be delivered on Mondays, Tuesdays and Thursdays at 11 o'clock. On Wednesdays, students will be examined on Van Oosterzee's "Theology of the New Testament." Fridays will be devoted to the hearing of Discourses and Exercises.

II. HEBREW.

REV. PROFESSOR ADAMS, B.D.

Junior Class—3 *to* 4.

Grammar and Exercises (Davidson's "Hebrew Grammar"). Translations into Hebrew Prose.

Readings and Explanations of easy Prose and Poetical Passages in the Old Testament. During Session 1882-83, a part of Genesis, the Book of Ruth, and selected Psalms will be read.

Oral and Written Examinations.

Senior Class—2 *to* 3.

Grammar (Davidson or Gesenius). Müller's Hebrew Syntax. Hebrew Prose Composition.

Readings and Explanations of the Historical, Poetical, and Prophetic Books of the Old Testament. During Session 1882-83, the Second Book of Samuel, Psalms cxx. to cl. inclusive, and the Books of Obadiah, Jonah, and Micah will be read critically.

Discussion of Questions regarding the Date, Authorship, Character, and Contents of the Books read.

Occasional Lectures on the Hebrew Language and Literature.

Oral and Written Examinations.

III. DIVINITY AND CHURCH HISTORY.

REV. PROFESSOR TAYLOR, D.D.

1. *Lectures*—On—The Rise and Diffusion of Protestantism: The Church in Scotland from 1572 to 1690.

2. *Text-Book*—Kurtz's "History of the Christian Church." First Section, First, Second, and Third Period.

3. Greek Text. First Oration of St Athanasius against the Arians. Bright's edition.

The work of the class includes three written examinations.

IV. BIBLICAL CRITICISM AND BIBLICAL ANTIQUITIES.

REV. PROFESSOR CHARTERIS, D.D.

Subjects of Course for Session 1882-83:—*Old Testament Course:* The Prophets and the Canon. *New Testament Course:* The adoption of the New Testament Canon; the history of the disputed books; and an account of some of the rejected books, Gnostic and Apocryphal.

Text-Books.—"Canonicity" (especially the Introduction, Sections 9, 10, 15, 16; and Text, Parts III., IV.); Greek Testament; Schmoller's Hand Concordanz; Grimm's Lexicon N.T. Oehler's Old Testament Theology.

There will be written and oral examinations in which all regular students are required to take part, and subjects of occasional essays will also be suggested.

Faculty of Law.

ORDER OF STUDY.

Extract from Minutes of a Meeting of the Faculty, 20th February 1863.

The Faculty having taken into consideration that the Course of Study in Law for the Degree of LL.B. extends over three

Academical years, and that the natural order in which the various branches of the Course ought to be taken up is often departed from and sometimes altogether inverted—recommend Students, whether intending to graduate in Law or not, to attend the Lectures in the following order, viz. :—

First year—Civil Law ;
Second year—Scotch Law ;
Third year—Conveyancing ;

and to attend the Lectures on Public Law, Constitutional Law and Legal History, and Medical Jurisprudence, during the Second and Third years of study, in such order as may be most convenient to each individual Student.

I. CIVIL LAW.

PROFESSOR MUIRHEAD.

The Course of Lectures on Civil Law extends over a Winter and Summer Term, covered by one entrance fee of £5, 5s. The Winter Lectures begin in November, and continue until the end of March ; the Summer Lectures are given in May, June, and July.

The subject-matter of the Course is the external and internal history and general and special doctrines of the Law of Rome, as developed in the Institutes of Gaius and Justinian, supplemented by the other ante-Justinianian and Justinianian texts.

During the Session 1882-83, the Professor proposes to lecture according to the order of Justinian's Institutes.

The Lectures will be equally adapted for students intending to enter the legal profession in Scotland or England, or qualifying for service in India or the Colonies.

Text-Books.—The Professor's edition of the Institutes of Gaius and Rules of Ulpian, and the Institutes of Justinian.

For preliminary reading, intending students may consult Ortolan's "History of Roman Law," by Pritchard and Nasmith, and Hunter's "Introduction to Roman Law."

II. LAW OF SCOTLAND.

PROFESSOR MACPHERSON.

Winter Session.

The Lectures have special reference to the writings of Mr Erskine, and Students are strongly recommended to make themselves familiar either with his "Principles," Editions by W. Guthrie, Esq., or his "Institutes," edition by J. Badenoch Nicolson, Esq., 1871.

1. Sketch of the Literature of the Law of Scotland—the sources of the Law — the interpretation of Statutes — jurisdiction — judicial machinery.

2. Personal Relations—marriage and the modes of proving it—patrimonial effects of Marriage—rights of husband and wife —dissolution of Marriage—divorce—tutors and curators—minors —insane—idiots—parent and child—master and servant.

3. On the Origin of Property — its acquisition — possession —heritable and moveable—constitution of heritable rights—the charter and its clauses—investiture—mutual rights of superior and vassal—law of landlord and tenant—transmission of feus—redeemable rights—servitudes—entails, prescriptions—questions of double title.

4. Obligations and Contracts—general requisites, constitution, and construction — partnership — joint-stock companies —factory and agency—sale—stoppage *in transitu*—commodate —pledge—carriers—shipping—insurance—bills of exchange—cautionary—extinction of obligations—diligence—bankruptcy.

5. Succession—heritable and moveable.

6. Parochial Law — clergy, teinds, manses, and glebes—churches—schoolmasters—poor.

7. Law of Evidence.

8. Criminal Law.

Summer Session.

The Lectures on Criminal Law are delivered during the Summer Session.

Lectures will also be delivered during Summer 1882, on succession—carriage—shipping—insurance.

III. CONVEYANCING.

PROFESSOR FRASER-TYTLER.

The course of Lectures delivered from the Chair of Conveyancing will embrace the following subjects :—

BRANCH FIRST—*Deeds in General.*

1. Capacity of the parties to contract, and lawfulness of the subject matter. 2. Requisites as to external form, description of the parties, integrity of the text, and the solemnities of execution and authentication. 3. Deeds privileged as regards these solemnities. 4. Necessity of delivery and acceptance. 5. Freedom of consent essential to give validity to Deeds, and operation of error, fraud, force, and fear as grounds of reduction. 6. Effect of *homologation* and *rei interventus* in validating Deeds imperfect or defective in themselves. 7. The Stamp Laws in their relation to conveyancing. 8. General Structure of, and clauses common to all Deeds.

BRANCH SECOND—*Deeds relating to Moveable Rights.*

1. The personal bond and other personal obligations, transmissions thereof *inter vivos*, and discharges. 2. Personal contracts (exclusive of the contract of Marriage). 3. Deeds relating to corporeal moveables, including maritime writs. 4. Factories and powers of attorney.

BRANCH THIRD—*Deeds relating to Heritable Rights.*

1. Sketch of the feudal system and its bearing on the existing state of heritable rights in Scotland. 2. The writs constituting a feudal estate, and the respective rights of superior and vassal. 3. The writs used in the voluntary transmission, *inter vivos*, of such estate, and of lands formerly held by burgage tenure. Under this head will also be considered the missive of sale and articles of roup, together with what constitutes a *prescriptive* progress of titles, and a full search of incumbrances. 4. The

judicial transmission of heritage. 5. Heritable securities, their constitution, transmission, and extinction. 6. Leases.

BRANCH FOURTH—*Family Settlements and relative Deeds.*

1. Destinations. 2. The completion of titles by the heir or successor to heritable estate. 3. The contract of marriage and bond of provision, as affecting moveable or heritable estate or both. 4. Testamentary Deeds, applicable to either or both classes of estate. 5. The completion of titles by the executor to moveable estate. 6. The entail and disentail, and relative Deeds.

In each of these Branches, the alterations made by recent Acts of Parliament in the structure or effect of any of the deeds or writs treated of, will be pointed out, and the old and new forms compared.

IV.—PUBLIC LAW.

PROFESSOR LORIMER.

The Course of Lectures delivered from the Chair of Public Law and the Law of Nature and Nations, is divided into two branches :—

1. NATURAL LAW, the Philosophy of Law, or the principles of the science of jurisprudence as a whole.

The object of this branch of the course is to exhibit jurisprudence in the light of a science resting, in all its departments, on nature, as opposed to a system of rules deduced from premises that are arbitrary or empirical. The Law of Nature is consequently investigated, not as a primitive system of positive law existing in a particular condition of society real or imaginary, but as the necessary groundwork of society itself, and the unchangeable element in all systems and branches of Positive Law.

The relation between Natural Law thus understood, and the *jus naturale* and *jus gentium* of the Romans, having been examined, and the more celebrated definitions and divisions of the science, ancient and modern, briefly enunciated, the general scheme of the whole course is explained, and the first branch subdivided thus :—

α. Sources of natural law, or of general jurisprudence = ultimate sources of positive law, or of special jurisprudence.

β. Objects of natural law, or of general jurisprudence = ultimate objects of positive law, or of special jurisprudence.

γ. Proximate sources of positive law, or of special jurisprudence viewed as a whole.

δ. Proximate objects of positive law, or objects of the different branches of positive Law.

2. INTERNATIONAL LAW, or the *jus inter gentes.*

1st, Sketch of the History of International Law. (*a.*) The Oriental or Ante-Classical Period. (*b.*) The Classical Period. (*c.*) The Maritime communities of the Mediterranean in the Middle Ages. (*d.*) The general maritime codes. (*e.*) The maritime jurisdiction of England. (*f.*) The North of Europe and the Hanseatic League. (*g.*) The rise of scientific jurisprudence : the Scholastic Period ; the Spanish period ; the Dutch and German Period, down to the Peace of Westphalia.

2d, *Public International Law.*

A. Independent States in their peaceful relations. (*a.*) Recognition ; or what is a State internationally considered? (*b.*) The different kinds of States. (*c.*) The property of the State. (*d.*) Intervention. (*e.*) The Balance of power. (*f.*) Legation. (*g.*) The Diplomatic Profession. (*h.*) The Consulate. (*i.*) Negotiation. (*j.*) Treaties. (*k.*) Professional literature of diplomacy.

B. Independent States in their warlike relations. (*a.*) Tentative war by means of embargo, reprisals, &c. (*b.*) The laws of war on land. (*c.*) Laws of war at sea. (*d.*) Blockade. (*e.*) Neutrality. This branch of the course is varied from year to year, some portions of it being treated with greater, and others with less fulness.

3d, *Private International Law,* or the rules in accordance with which the municipal laws of one State are recognised within the territories of another. This subject is treated in connection with the general doctrine of recognition.

The abstract principles evolved in the first branch of the course are continually kept in view, and exhibited in the concrete in the subsequent branches. In discussing the doctrines

of Public International Law, the aim of the Professor is twofold; 1st, To illustrate to Law Students in general the dependence of a special branch of jurisprudence on the facts of nature, and on the relations necessary to the existence and development of organic social life; and 2d, To communicate information on the subject of positive International Law, both public and private.

The Course for Session 1882-83 will commence on October 31. The Lectures will be delivered *five* days a-week, and will terminate simultaneously with the other Classes in the Faculty of Law.

Text-Books.—Natural Law—Lorimer's Institutes of Law, 2d Edition Ahrens's Cours de Droit Naturel. Trendelenburg's Naturrecht auf dem Grunde der Ethik. Krause's Rechts philosophie (edited by Röder), and Röder's Naturrecht.

History.—Wheaton's History of the Law of Nations. Pardessus's Us et Coutumes de la Mer. Reddie's Historical View of the Law of Maritime Commerce. Lindsay's History of Merchant Shipping.

Public International Law.—Bluntschli's Moderne Völkerrecht (of which there is a French translation entitled Droit International Codifié). Heffter's Droit International Public. Lawrence's Commentaire sur les Élémens du Droit International. Wheaton's Elements of International Law, by Lawrence or Dana. Phillimore's International Law. Hall's International Law.

Private International Law.—Savigny's Private International Law, by Guthrie, 2d Edition. Bar's Internationale Privat-und Strafrecht. Westlake's Private International Law, 2d Edition.

V. HISTORY.

PROFESSOR KIRKPATRICK.

The Lectures in the Summer Session 1882 will be given on four days a week at 4 P.M., commencing on Tuesday, 16th May.

Their subject will be—The History of England, with special reference to Constitutional Law.

Students are recommended to consult Stubbs' "Select Charters," and Hallam and May's "Constitutional History," and "The Annals of England." Oxford and London, Parker, 1876.

Reference will be made to the principal authorities for the different periods in the course of the lectures.

For Constitutional Law students are recommended to consult Stubbs' Select Charters and English Constitutional History; Hallam's Middle Ages, Chap. viii.; Hallam's Constitutional History of England, from the reign of Henry VII. to George II.; Sir Thomas Erskine May's Constitutional History, for the period from the accession of George III.; The English Constitution by Walter Bagehot; Guizot's Lectures on Representative Government; R. Gneist's Self-Government in England, 3d Edition, Berlin, 1871; Geschichte und heutige Gestalt der Aemter und des Verwaltungsrechts in England, 2d Edition, Berlin, 1866; and Blackstone's Commentaries, Book IV. of Public Rights.

VI. MEDICAL JURISPRUDENCE.

PROFESSOR MACLAGAN.

Part I.—Medical Jurisprudence.

MEDICAL EVIDENCE GENERALLY.

1. Documentary—
   Reports and written opinions.
2. Oral—
   Common witnesses. Experts.
3. Experimental—
   Examination of the living; identity; state of body; state of mind. Examination of the dead; real or apparent death; identity; cause of death; exhumations, autopsies. Examination of localities. Examinations of productions.

MEDICAL EVIDENCE SPECIALLY.

Questions affecting Health or Life.

1. Assaults and Homicides—
   Wounds and other external injuries; blood-stains. Suffocation, hanging, and strangling; drowning. Starvation. Heat and cold. Poisons.
2. Suicide.
3. Offences against Chastity—
   Rape, &c.: concealment of pregnancy; criminal abortion; infanticide.
4. Malpraxis and Neglect of Duty.

Questions affecting Property.

Nuisances. Arson. Forgery. Coining.

Questions affecting Civil Rights or Social States.

Marriage and Divorce. Impotence and sterility. Live birth; Inheritance. Legitimacy. Survivorship. Insanity. Congenital defects. Exemption from public duties. Feigned diseases.

Part II.—Medical Police. Public Health.

HYGIENE OF INDIVIDUALS.

Man—

Age and development. Sex. Constitution.

External Agencies—

Food and Drink. Air. Clothing. Ablutions. Exercise.

Habits and Modes of Life—

Temperance. Celibacy and Marriage. Professions: learned mechanical, criminal. Punishments. Prostitution.

Duration and Expectancy of Life—

Life Assurance.

HYGIENE OF COMMUNITIES.

Duties of Medical Officers of Health.

Climate—

Causing disease; remedying disease.

Towns, Camps, and Private Habitations—

Topographical position; water supply; heating and lighting; ventilation; drainage and sewerage.

Public Buildings—

Schools; churches; hospitals; theatres; prisons.

Cemeteries. Quarantine Establishments. Epidemics; Endemics.

Text-Books.—Taylor's "Medical Jurisprudence," Guy's "Principles of Forensic Medicine," Wharton and Stillé's "Treatise on Medical Jurisprudence," Parke's "Practical Hygiene," Wilson's "Handbook of Hygiene," Michael, Corfield, and Wanklyn—"Manual of Public Health," edited by E. Hart, Galton's "Healthy Dwellings."

VII. POLITICAL ECONOMY AND MERCANTILE LAW.

See under Political Economy in Faculty of Arts.

Faculty of Medicine.*

I. ANATOMY.

PROFESSOR TURNER.

Winter Courses.

1. LECTURES ON ANATOMY, at 1 P.M.—It is intended in this Course of Lectures to bring before the Student, in a systematic manner, the structure of the Human Body. The different systems and organs will be described, not only in the more obvious arrangements and relations of parts which can be examined by the naked eye, but in their more minute or microscopic structure. The Course includes, therefore, both Textural or General Anatomy and Descriptive Anatomy. The Lectures are illustrated by recent dissections, by wet and dry preparations, by a large collection of Osteological specimens, and by drawings and diagrams. Structures too minute to be recognised by the naked eye are demonstrated under the Microscope.

To assist the Junior Members of the Lecture Class to acquire a knowledge of Osteology, Tutorial Demonstrations on the bones will be given during the earlier months of the Session without additional fee. Special Demonstrations will be given to the Senior Students on the brain and organs of special sense.

Text-Books — The Professor's "Introduction to Human Anatomy," with Gray's "Anatomy," or with Wilson's "Anatomy." Quain's "Elements of Anatomy."

2. ANATOMICAL DEMONSTRATIONS, at 4 P.M.—In this Course, which is conducted in the Theatre, the structure of the human body is displayed and demonstrated topographically, from the surface inwards. The Professor and the Demonstrator, Arthur Thomson, M.B.., will jointly conduct the Course.

3. PRACTICAL ANATOMY, under the superintendence of the Professor, aided by the Demonstrators, Arthur Thomson, M.B., W. Bannerman, M.B., C.M., and by other assistants.

* Classes arranged as in the order of the departments enumerated in the Statutes relative to Degrees in Medicine.

This Course will commence on Monday, October 2. The Dissecting-rooms are open from 9 A.M. to 4 P.M., and on Saturdays from 9 to noon. The Mackenzie Bursaries are awarded to members of this Class.

Text-Books.—"Demonstrations of Anatomy," by Ellis, or Heath's "Practical Anatomy," or Holden's "Manual of the Dissection of the Human Body," and Cunningham's "Dissector's Guide."

Summer Courses.

1. PRACTICAL ANATOMY, as in Winter. The Course will commence on Tuesday, 2d May. The Rooms are open from 9 A.M. to 5 P.M.; on Saturdays from 9 A.M. to noon.

2. ANATOMICAL DEMONSTRATIONS in the Theatre will commence on Thursday, 4th May, and will be given partly by the Professor, and partly by the Demonstrator, Arthur Thomson, M.B. This Course is open, without additional Fee, to those engaged in Practical Anatomy during the Summer, and will consist of demonstrations on some special departments of Anatomy.

II. CHEMISTRY.

PROFESSOR CRUM BROWN.

1. LECTURES ON CHEMISTRY—

In the Lectures the general laws of chemical action are explained and illustrated.

The non-metallic elements and their compounds are described in detail. The metals and the different series of metallic salts are considered more generally, details being given in the case of the more important substances.

The principles upon which the classification of organic substances is based are explained, and the properties of the chief groups illustrated in detail.

Tutorial Classes, meeting once a week, are conducted by Dr Morrison.

Text-Books.—"Bloxam's Chemistry, Inorganic and Organic," or "Wurtz, Elements of Modern Chemistry by Greene."

Advanced Classes are held on special subjects such as Organic Chemistry, Mineralogical Chemistry, Technological Chemistry, &c.

2. LABORATORY.—The Laboratory is open for the reception of students who desire to study Analytical Chemistry, or to undertake chemical investigations. The Fee for the Laboratory is ten guineas for the Winter Session, and six guineas for the Summer Session. The instruction in the Laboratory is given by the Professor, assisted by Dr Gibson and Dr Dobbin.* [For details in reference to the HOPE PRIZE, and Hope Prize Scholarship, which are attached to the Laboratory, and the ROBERT WILSON MEMORIAL PRIZE, which is attached to the Class of Chemistry, see under *University Prizes*, in a subsequent part of the Calendar.]

3. PRACTICAL CLASSES.—The instruction in these is chiefly devoted to practice in Qualitative Analysis, with special reference to its applications to Medicine and Pharmacy. They are taught by the Demonstrator, under the superintendence of the Professor. The Fee is three guineas.

III. MATERIA MEDICA AND THERAPEUTICS.

PROFESSOR THOMAS R. FRASER.

Materia Medica comprises the subjects of general therapeutics, special therapeutics, pharmacy, and dietetics; and the remedial applications of electricity and galvanism, heat and cold, &c. Instruction in Materia Medica is given in (A) a course of 100 Lectures during the Winter Session, and in (B) Practical Classes during the Summer Session, and of equivalent duration during the Winter Session.

* As the accommodation is limited, Students intending to work in the Laboratory should make early application for places to prevent disappointment.

A.—Lectures on Materia Medica and Therapeutics. —This course includes the following among other *Special Topics*.—1. The natural history, pharmacy, physiological action, therapeutical uses, and modes of administering remedies, ordinarily so called. Such remedies consist of (*a*) mineral substances; (*b*) vegetable substances; (*c*) animal substances. 2. Food and drink, considered generally and in reference to disease. 3. Electricity and galvanism, with a description of the apparatus required for their application in disease. 4. Heat and cold. 5. Climate.

B.—Practical Classes.—In these classes, *practical* instruction is given in the following subjects embraced in Materia Medica, but which cannot satisfactorily be taught in a course of lectures:—1. Pharmacognosy, or the recognition of drugs by their physical and chemical characters, and the detection of adulterations. 2. Pharmacy, or the processes for obtaining the pharmaceutical preparations of drugs. 3. Dispensing, or the making up of medicines in forms suitable for administration in disease.

It is recommended that the practical class be attended before, or simultaneously with, the course of lectures on Materia Medica and Therapeutics. Practical classes are taught during the Summer Session, when they meet daily at such hours as are found most convenient. A winter class will also be formed in November, which will meet three times a week.

Pharmacological and Pharmaceutical Laboratories.

The above laboratories will be open daily to present and former Students of the class of Materia Medica for Pharmacological and Pharmaceutical Research, under the superintendence of the Professor and his Assistant.

IV. INSTITUTES OF MEDICINE OR PHYSIOLOGY.

PROFESSOR RUTHERFORD.

This Course, consisting of 100 Lectures, is held in the Winter. It includes—

1. An account of the Structure, Composition, and Functions of the Tissues of the Body.

2. An account of the Nutrition of the Body, including Circulation, Respiration, Alimentation, Nutrition of the Tissues, Excretion, together with the minute structure of the organs concerned.

3. An account of Animal Heat.

4. An account of the Larynx and its functions.

5. An account of the minute structure and physiology of the Sense organs, and the special physiology of the Nervous System.

6. Reproduction and Development.

Practical Physiology.

This Course is divided into two sections—

1. *Practical Histology*, in which every Student prepares, examines, and preserves for himself most of the tissues and organs of the body. Each student is provided with a Hartnack's microscope, and all reagents.

2. *Practical Chemical Physiology*, in which every student performs the analysis of the Urine in its normal and abnormal conditions, with special reference to clinical work, and such analyses of Blood, Bile, Milk, etc., as are possible in a class, together with experiments on Digestion.

3. *Experimental Physiology*, in which the student will be shown those experiments, and the use of those instruments which cannot be sufficiently studied in the lecture room.

This course is given, both in the Winter and Summer Session. In Winter, it begins early in November, and is held thrice a week. In Summer it begins early in May and is held daily. In each session the course consists of about Sixty Lessons.

Private Physiological Research.

The Physiological Laboratory, containing all the necessary appliances, is open daily for the prosecution of private Physiological Research, under the direction of the Professor and his Assistant.

V. PRACTICE OF PHYSIC.

PROFESSOR GRAINGER STEWART.

This Course comprises—

I. An account of the nature, and more particularly of the clinical characteristics and the treatment of the different types of morbid action.

II. An account of the morbid anatomy, clinical history, causes, diagnosis, prognosis, and treatment of the diseases of the different systems and organs.

It is intended that each course shall be, as far as possible, complete; but that, while the general principles (included in Part I.) shall be fully discussed each session, the diseases of individual systems (included in Part II.,) shall be taken up in different order year by year, and certain systems selected for more minute consideration.

The course is illustrated by specimens from the Anatomical Museum of the University, and from the Professor's private collection, as well as by numerous drawings, diagrams, and charts.

A Tutorial Class for oral examination will be conducted by the assistant.

VI. SURGERY.

PROFESSOR SPENCE.

The Course comprises :—

I. THE CONSIDERATION OF THE GENERAL PRINCIPLES OF SURGERY.

Outline of Inflammation, Tumour Growth, and other Forms of Morbid Action in reference to Surgical Diseases. Inflammation, illustrated by Inflammatory Diseases of the Eye.

II. PRACTICE OF SURGERY.

External Injuries—Wounds, Fractures, and Dislocations.
Diseases of Bones and Joints.
Diseases and Injuries of Blood Vessels. Special Aneurisms, and the Operations for Ligature of the different Arteries.
Amputations and Excisions of Joints.
Injuries of Head, and their consequences; Operation of Trepan.
Tumours of Face and Neck.

Injuries and Diseases of Air Passages; Tracheotomy, and Laryngotomy.
Injuries and Diseases of Pharynx and Œsophagus; Removal of Foreign Bodies.
Surgery of Mouth and Face. Operations on Eye and its appendages.
Excision of Upper and Lower Jaws.
Thorax: Injuries—Fracture of Ribs—Wounds—Emphysema—Pneumothorax—Hemato-thorax—Hydrothorax and Empyema. Paracentesis thoracis.
Wounds of the Abdomen—Hernia—Special Herniæ, and their treatment.
Injuries and Diseases of the Genito-Urinary System, and operations required for their treatment.
Diseases of the Rectum.

In the Session 1882-83 it is intended to devote the chief part of the Lectures to the Practical Division of the Course, commencing with Hæmostatics; Wounds and Injuries.

During the Session, besides the special Competitive examinations, there will be Oral Examinations of the Class and practical instructions and examinations in Operative Surgery.

The system of teaching by oral and practical examinations will be continued and more fully developed.

Text-Book.—The Professor's "Lectures on Surgery."

Tutorial Classes for the practice of Bandaging and Surgical appliances, by the Pupils of the Class, are conducted by the University Assistant of the Professor.

During the Summer Session a Class for the practice of Operative Surgery, under the personal superintendence of the Professor, meets on Mondays, Tuesdays, Thursdays, and Fridays. Fee £2, 2s.

VII. MIDWIFERY AND THE DISEASES OF WOMEN AND CHILDREN.

PROFESSOR SIMPSON.

The Course of Instruction comprises Lectures on—

I. The Anatomy and Physiology of the Female Organs of Reproduction.

II. The Physiology, Pathology, and Therapeutics of Pregnancy.

III. Parturition—Natura (Eutocia), and Morbid (Dystocia).

IV. The Hygiene, Pathology, and Therapeutics of the Puerperal State.

V. The Hygiene, Pathology, and Therapeutics of Infancy and Childhood.

VI. The Special Pathology and Therapeutics of the Female Organs of Reproduction.

One day in each week is devoted to the Gynecological Section of the Course; and the Diseases of Women may be studied clinically in the Royal Infirmary in the Buchanan Medical Ward in connection with the class of Clinical Medicine.

Midwifery may be studied clinically in the Royal Maternity, of which the Professor is, *ex officio*, one of the Medical Officers, and where he is in attendance during the first three months of the Winter Session. The Professor makes a special Clinical visit with the Members of the Class, who have taken the Maternity Ticket, on Saturdays, at the usual Lecture hour—11 a.m.

After the Class-roll is made up, Tutorial classes are formed for Practical Instruction in the use of Obstetric and Gynecological Instruments and Appliances.

Medals and Certificates of Merit are awarded for answers at two Written Examinations held during the Session.

Summer Session.

A Course of Lectures on Obstetric and Gynecological Operations, with Demonstrations of the use of Instruments and Appliances, is conducted during the Summer Session at 10 A.M.

On Tuesdays and Fridays the Professor gives Lectures and Demonstrations. On the other days of the week the sections of the class are trained in the investigation and treatment of Female Diseases, and the members of the class have an opportunity of practising operations on the recent subject, and on lay figures.

Text-Books.—Playfair's or Lusk's Midwifery. Sir J. Y. Simpson's Clinical Lectures on the Diseases of Women. The Professor's "Contributions to Obstetrics and Gynecology." Hart and Barbour's Manual of Gynecology.

For conditions of the Buchanan Scholarship in Midwifery, *see* "Scholarships in Medicine" further on in the *Calendar*.

VIII. GENERAL PATHOLOGY, INCLUDING MORBID ANATOMY.

PROFESSOR GREENFIELD.

This Course embraces—

1. Etiology = the causes of disease.

2. Morbid Anatomy and Histology = the structural changes, and Pathological Chemistry = the changes in composition, which occur in disease. (Malformations will be included under Morbid Anatomy).

3. Pathological Physiology = the alterations of function in disease; including Symptomatology = the general signs and symptoms of disease.

These different departments will be treated in the order considered most convenient, and always with reference to general laws or principles. Greater extension will be given to No. 2, Morbid Anatomy, General and Special, being made the basis of Pathological instruction.

Part of the Course will consist of the demonstration of recent morbid specimens, the minute structures being displayed under the microscope. Preserved specimens as well as a selection from the morbid preparations in the University Anatomical Museum, will be exhibited and explained. The Lectures will be illustrated by plates, diagrams, &c.,

Text-Books.—Ziegler's Text-Book of Pathological Anatomy; Cornil and Ranvier's Manual of Pathological Histology; Wilks and Moxon's Lectures on Pathological Anatomy.

Practical Pathology.

Classes for Practical Instruction in Morbid Anatomy and Pathological Histology are conducted in the Pathological Laboratory—microscopes and other necessary apparatus being supplied. The Course consists of—1st. Naked Eye Demonstration; 2d. Histological investigation and preparation of Morbid Structures and Organs.

For the Winter Course, the class meets three times a week,

from the beginning of November till the end of March. For the Summer Course, five times a week, from the beginning of May till the end of July.

The Laboratory is also open daily from 10 A.M. till 4 P.M. for Pathological Research, under the direction of the Professor and his Assistants.

IX. CLINICAL MEDICINE.

PROFESSORS MACLAGAN, GRAINGER STEWART, T. R. FRASER, AND GREENFIELD, WITH PROFESSOR SIMPSON FOR DISEASES OF WOMEN.

The course of Clinical Medicine, consisting of Clinical Lectures and Instruction in the University wards of the Royal Infirmary, is conducted conjointly by the Clinical Professors—all the Professors being on duty during both the Winter and Summer Sessions, the Professor of Midwifery giving lectures and demonstrations on Gynecological Medicine on certain days, both during Summer and Winter.

The Course consists of :—1. Practical Instruction on four days a week at the bedside. 2. Critical Expositions and Discussions of illustrative, important, or difficult cases in the lecture-room on two days a week.

Every facility is afforded to members of the Class to act as Clinical Clerks, and those are preferred who have already had a course of tutorial instruction. At the close of each Summer Session, six gentlemen, who have at some time been members of the Class, are appointed to be Resident Physicians in the Clinical Wards during the following Winter and Summer Sessions.

For notice of the Wightman Prize see "University Prizes."

Clinical Tutorial Class.

Practical instruction in the Methods of Physical Examination is given to Classes, limited in number, by the University Clinical Tutor, in connection with the course of Clinical Medicine.

Junior Students are strongly advised to take this course of instruction along with their first course of Clinical Medicine.

X. CLINICAL SURGERY.

PROFESSOR ANNANDALE.

The objects of this Course are to teach the diagnosis of Surgical diseases and injuries, by pointing out their distinctive characters in the living body ; and to illustrate the principles of treatment, by shewing their application in practice. With these views, the patients whose cases come under consideration are brought before the Students in the Clinical Theatre of the Hospital, when, with due regard to their feelings and interests, the opinions entertained as to the seat and nature of the malady are freely expressed, and the means of remedy deemed requisite are carefully explained and carried out, either at the time or upon some other more convenient occasion. In addition to the lectures, the Clinical Surgical Wards in the Hospital are regularly visited, and the cases of both in-patients and out-patients are demonstrated so as further to illustrate the practice of surgery and the progress of patients under treatment. Practical instruction in connection with the examination of patients, the observation of symptoms, the treatment of surgical emergencies, the uses of instruments, and other surgical details, is given by the Tutor attached to the Chair in small classes, which are free to all Students attending the Course.

Text-Books.—Professor's Abstract of Surgical Principles and Spence, Erichsen, or Bryant's works on Surgery.

XI. MEDICAL JURISPRUDENCE.

PROFESSOR MACLAGAN.

[See "Faculty of Law," page 76.]

XII.—BOTANY.

PROFESSOR DICKSON.

I. *Lectures on Botany.*

The course is a general one—Structural, Physiological, and Systematic—illustrated by diagrams and specimens. The Lectures are given every Monday, Tuesday, Wednesday, Thursday, and Friday, during the Summer Session. Saturdays are occupied with excursions and demonstrations in the fields.

The Garden and Herbarium are open to pupils for the examination of fresh and dried specimens of plants.

Competitive Examinations for Honours are conducted in the Upper Library Hall of the University. Certificates in the First and Second Class of Honours are given, both in the Senior and Junior Divisions of the Class, to those who acquit themselves in a satisfactory manner at these Competitive Examinations, which are conducted by means of printed questions and written answers, without aid from books or notes.

A Special Prize is given for the best and approved Herbarium of flowering plants and ferns collected within 20 miles of Edinburgh during the year ending

II. *Practical Botany.*

Practical Classes, under the superintendence of the Professor, will be conducted by Patrick Geddes, Esq., as follow :—

1. A course of Vegetable Histology, for beginners. Fee, £2, 2s.

2. An advanced course for students who have already attended the preceding one. Fee, £1, 1s.

XIII.—NATURAL HISTORY.

PROFESSOR EWART.

I. *Lectures on Zoology.*

The first lectures are devoted to the consideration of one of the lower vertebrates. The rest of the course, while dealing generally with the organization, phyllogeny, and distribution of animals, will especially deal with the anatomy and development of a few typical invertebrate and vertebrate forms.

The Students have access to the Natural History collection in the Museum of Science and Art, and the lectures are illustrated by specimens from that collection, and from the Anatomical Museum of the University.

II. *Practical Zoology.*

Each member of this class examines for himself a series of invertebrate forms including Amœba, Paramœcium, Vorticella, and Hydra; the Earthworm, Leech, Starfish, Lobster, Cockroach, Mussel, and Snail; the Cod, Frog, Tortoise, and Pigeon.

This class will be conducted by the Professor, with the assistance of Mr R. J. Harvey Gibson, M.A.

For the ordinary work of the course there are recommended for consultation and reference:—Huxley's "Anatomy of Vertebrated Animals;" Huxley's "Anatomy of Invertebrated Animals:" Gegenbaur's "Elements of Comparative Anatomy," translated by F. Jeffrey Bell; The Professor's "Syllabus of the Mammalia;" and for the practical class, Huxley and Martin's "Elementary Biology."

TABLE OF MINIMUM COST OF ATTENDING THE MEDICAL CLASSES, WITH THE ORDER OF STUDY.

Whilst there is no authorised order of study, the usual Course is given below. The Preliminary Examination in General Education is to be taken in the month of March or of October, before entering the Medi-

cal Classes. Students are recommended to commence their Medical Studies in the Summer Session.

It is to be observed that the Table gives only one Course of Instruction on each subject, that being all that is required by the Regulations. It does not include extra courses, nor courses on special subjects which Students may voluntarily attend. Those who can spare the time, are recommended to extend the course of study over five years.

First Summer Session.			
Preliminary Examination Fee	£0	10	0
Matriculation Fee	0	10	0
Botany (garden fee, 5s.)	4	4	0
Natural History	4	4	0
	£9	8	0

First Winter Session.			
Matriculation (for whole year)	£1	0	0
Anatomy	4	4	0
Practical Anatomy	3	3	0
Chemistry	4	4	0
Hospital (Perpetual Ticket, £12)	6	6	0
	£18	17	0

Second Summer Session.			
Botany or Nat. History, (if not attended previously.)			
Practical Chemistry	£3	3	0
Examination in Botany, Natural History, and Chemistry, in October following*	5	5	0
	£8	8	0

Second Winter Session.			
Matriculation	£1	0	0
Institutes of Medicine	4	4	0
Surgery	4	4	0
Hospital	6	6	0
Examination in Botany, Natural History, and Chemistry, in April (if not previously passed)			
	£15	14	0

Third Summer Session.			
Practical Materia Medica, Practical Pharmacy	£3	3	0
Hospital			
	£3	3	0

Third Winter Session.			
Matriculation	£1	0	0
Materia Medica	4	4	0
Pathology	4	4	0
Clinical Surgery	4	4	0
Hospital			
Examination in Anatomy, Physiology, Materia Medica, Pathology in April or July.	5	5	0
	£18	17	0

* For those who have certificates for two Summer Sessions and one Winter Session and who have attended two courses during each of these three sessions.

Fourth Summer Session.			
Medical Jurisprudence..	£4	4	0
Out Door Dispensary...	2	2	0
Hospital and Clinical Lectures.....			
	£6	6	0

Fourth Winter Session.			
Matriculation.....	£1	0	0
Practice of Medicine....	4	4	0
Midwifery.....	4	4	0
Practical Midwifery.....	1	1	0
Clinical Medicine	4	4	0

Fourth Win. Ses.—*continued.*			
Vaccination.....	1	1	0
Out Door Dispensary...	1	1	0
Hospital.....			
	£16	15	0

Fifth Summer Session.			
Hospital.....			
Final Examination for M.B. and C.M.....	£10	10	0
Total *Minimum* Expenses for Class and Examination Fees for M.B. and C.M.....	£107	18	0

FEES FOR DEGREES.

Examination in Botany, Chemistry, Chemical Testing, and Natural History, ...	£5	5	0
Examination in Anatomy, Institutes of Medicine, Materia Medica, Prescriptions, Pathology, ...	5	5	0
Final Examination in Surgery, Midwifery, Practice of Physic, Clinical Medicine (with Prescriptions), Clinical Surgery, Medical Jurisprudence, during last Summer Session,	10	10	0
Registration Fee, ...	1	0	0
Total Fees for M.B. and C.M. Diplomas, .	£22	0	0
Additional Fee for M.D. Diploma, ...	£5	5	0
Government Stamp-Duty (for M.D. only) . . .	10	0	0

In the event of the Candidate not passing any one of the Professional Examinations, the Fee is not returned; but he may appear at one subsequent examination without paying an extra Fee, and at any future examination on paying a Fee of £2, 12s. 6d.

Note.—Total Fees and Stamp for graduating as M.D. only, by Regulations for Students commencing before February 1861, £25.

N.B. —The above fees include all charges for the Diplomas.

COURSES OF NON-PROFESSORIAL LECTURES.

I.—LECTURES ON MENTAL DISEASES.

DR CLOUSTON, LECTURER.

This course consists of—

1. Systematic Lectures in the University during the Summer Session on the Classification, Symptoms, Causes, and Treatment of Mental Diseases.

2. Demonstrations, naked eye and microscopic, in the University and at the Royal Asylum, Morningside, of the Morbid Anatomy of Insanity. These are supplemented by drawings. Students will have an opportunity of original investigation in the Pathological Museum of the Asylum.

3. Clinical instruction at the Royal Asylum, Morningside (West House), in all the forms of Mental Disease. Students have the opportunity of personally coming in contact with and examining the cases, so as to learn the modes of managing and dealing with patients labouring under Mental Disease, and they are exercised in the diagnosis of Insanity and the drawing up of certificates; the aim being to enable them to recognise its early stages, to distinguish its varieties, to adopt suitable treatment, and to advise the relatives as to the question of sending the patient to an asylum or not. There is a clinical field of 550 beds, comprising all the wards except those for private patients. This part of the course extends through the Summer and part of the Winter Session.

4. A few lectures on the medico-legal, hereditary, educational, and social relations of Mental Disease, and on its bearings and significance in ordinary medical practice.

There are Free Clinical Clerkships, tenable for three months, in the Royal Edinburgh Asylum, and in several other Asylums, in connection with the class.

Text-Book.—Dr Clouston's "Clinical Lectures on Mental Diseases."

For Consultation.—Bucknill and Tuke's "Psychological Medi-

cine," Maudsley's "Pathology of Mind," and his "Physiology of Mind," Blandford's "Lectures on Insanity," Laycock's "Mind and Brain."

II.—DR MUIR'S COURSE OF LECTURES ON THE SCIENCE OF RELIGION.

LECTURER—THE REV. A. M. FAIRBAIRN, D.D.

The Lectures for 1883, six in number, will be delivered on Monday, 8th January, and following Monday, Wednesdays, and Fridays.

The subject will be "Hellenism, Judaism, and the birth of Christianity."

III.—UNIVERSITY ENDOWMENT LAW FELLOWSHIP LECTURES.

LECTURER—MR J. F. M'LENNAN, M.A. LL.B.

Six Lectures on "Contract Law: Distinctive Principles of Contract in Scotland," will be delivered in the month of November 1882. Particulars will be subsequently announced.

Regulations for Graduation

In ARTS, SCIENCE, MEDICINE, LAW, *and* DIVINITY; *with the* LISTS OF GRADUATES *in these Departments.*

Graduation in Arts.

REGULATIONS OF THE UNIVERSITY OF EDINBURGH RELATIVE TO THE DEGREE OF MASTER OF ARTS (M.A.)

(*Applicable to all who have entered their Academical Course since* 31*st October* 1861.)

The Degree of Master of Arts is a passport to the General Council of the University, to professional Study for the Learned Professions, to the Army, &c. It is also, under recent regulations, a passport to Masterships of Public Schools, under the Education Act (1872), *subject to an examination in the methods of instruction, and three months' attendance in a Public School for the practice of teaching.*

I. The ordinary Course of Study necessary for the Degree of Master of Arts (except in the circumstances mentioned in the following Article) extends over FOUR WINTER SESSIONS, and includes attendance for not less than two Sessions on the Classes of Humanity, (Latin), Greek, and Mathematics respectively; attendance for not less than one Session on the Classes of Logic and Metaphysics, Moral Philosophy, and Natural Philosophy respectively; and also attendance on the Class of Rhetoric and English Literature.

II. Any Student who, at the time of his Entrance to the University shall satisfy the Professors of the Faculty of Arts, on Examination, that he is qualified to attend the Higher Classes of Latin, Greek, or Mathematics, or any one of them, may be admitted to such Higher Class or Classes without having previously attended the Junior Class or Classes in the same depart-

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* Extract from Consolidated Regulations of the several Societies of Lincoln's Inn, the Middle Temple, the Inner Temple, and Gray's Inn, London, as to Legal Education.

"That every person who shall have passed a Public Examination at any of the Universities within the British Dominions, shall be entitled to be admitted as a Student to any Inn of Court for the purpose of being called to the Bar, or of practising under the Bar, without passing a Preliminary Examination.

"That Students of the said Societies who shall at the same time be Members of any of the Universities of Oxford, Cambridge, Dublin, London, Durham, the Queen's University in Ireland, St Andrews, Aberdeen, Glasgow, or Edinburgh, shall be enabled to keep Terms by Dining in the Halls of their respective Societies any Three days in each Term."

ment. When a Student has been thus admitted by the Faculty of Arts to the Higher Classes both of LATIN and GREEK, without having previously attended the First or Junior Latin and Greek Classes, his Course of Study for the Degree of Master of Arts may be completed within THREE WINTER SESSIONS, instead of Four. And no Student who is thus admitted to the Higher Class of LATIN, GREEK, or MATHEMATICS, without having previously attended the First or Junior Class in the same department, is required to give attendance in Latin, Greek, or Mathematics respectively, for more than *one* Session, as a necessary part of the Course of Study for the Degree of Master of Arts.

III. In pursuing the Course of Study for the Degree of Master of Arts, no Student is permitted to pass from the Junior to the Higher Class, unless the Professor is satisfied of his fitness to enter the Higher Class.

IV. It is in the power of any Student, who has given attendance during one or more Sessions in any Scottish University, to complete his Course of Study, by giving attendance in the University of Edinburgh during the remaining Sessions of his Course; provided always that every such Student gives attendance in the University of Edinburgh during, at least, the *last Two Sessions* of his Course; and provided also that he produces, to the satisfaction of the Faculty of Arts of the University of Edinburgh, Class Certificates of his attendance at the former Scottish University—but he shall be examined in all the three Departments necessary for the Degree of Master of Arts by the Examiners of the University of Edinburgh.

V. Candidates for the Degree of Master of Arts must be examined on all the subjects of instruction embraced in the above Course of Academical Study; and the examinations may be conducted wholly in writing or partly *viva voce*.

VI. Any Student who has completed his attendance on the Classes of

LATIN AND GREEK,

required in the prescribed Course of Study, may be examined on these Subjects, at any Examination for Degrees, although he may not have completed his attendance on the other Classes of the prescribed Course.

In like manner, any Student who has completed his attendance on the Classes of

LOGIC AND METAPHYSICS, MORAL PHILOSOPHY, AND RHETORIC AND ENGLISH LITERATURE,

may be examined on these Subjects, at any Examination for

Degrees, although he may not have completed his attendance on the other Classes of the prescribed Course.

Also in like manner, any Student who has completed the attendance required in the prescribed Course of Study on the Classes of

MATHEMATICS AND NATURAL PHILOSOPHY,

may be examined on these subjects at any Examination for Degrees, although he may not have completed his attendance on the other Classes of the prescribed Course.

And if such Student shall satisfy the Examiners, when so examined, in the Department of CLASSICAL LITERATURE, which comprehends Latin and Greek—or in the Department of PHILOSOPHY, which comprehends Logic and Metaphysics, Moral Philosophy, and Rhetoric and English Literature—or in the Department of MATHEMATICS and PHYSICS, which comprehends pure Mathematics and Natural Philosophy, he shall receive from them a CERTIFICATE to that effect, and he shall not be examined again in the same Department, as a condition of his taking the Degree of Master of Arts.

VII. Students who have fulfilled the preceding conditions, and have passed the ordinary Examinations on the several subjects embraced in the prescribed Course of Study, are, after signing the *Sponsio Academica*, and on presenting themselves at the Public Ceremonial of Graduation in April, entitled to receive the Degree of Master of Arts; and their names are published in the UNIVERSITY CALENDAR, in alphabetical order, in the Graduation List.

VIII. At the Public Ceremonial of Graduation in Arts, held annually in April, the Degree of MASTER is conferred by the Chancellor or the Vice-Chancellor of the University, in name of the Senatus Academicus. Degrees are not conferred on any who are not present at the Graduation Ceremonial, and who have not signed the *Sponsio*, although they may have passed all their examinations. Those who are presented to receive the Degree must appear in Academical costume, and with the hood proper to the Degree.*

IX. Fees for Examination must be paid by Candidates in advance, when they intimate their names and addresses to the Clerk of the University. The Examination fee for the Degree in Master of Arts is *Three Guineas*. The fee for Examination of each of the three Departments mentioned in Article VI. is *One Guinea;* and no further fee than the sum of *Three Guineas*

* Black silk lined with *white*.

is payable by any Candidate for admission to the Degree in Arts, whether with or without Honours.*

GRADUATION IN ARTS WITH HONOURS.

I. Students who have passed the Examinations in the three Departments embraced in the Course of Study prescribed for the Degree of Master of Arts, may, before taking the Degree, offer themselves for a further examination, with a view to Graduation with Honours; and that either in the same year in which they have completed the Pass or Ordinary Examinations, or in a future year. Also, any Student who desires to offer himself for Examination with a view to graduation with Honours, in any one or more departments, may proceed to such Honours' Examination, after sufficient attendance on the classes in the department or departments in which he desires to offer himself, without having previously passed the Examination in such department or departments for the Degree of Master of Arts without Honours; and if such Student, in the opinion of the Examiners, fails to attain the standard for Honours in any department, but attains to the standard of the Examination for graduation without Honours, he shall be held to have passed in that Department for the Degree of Master of Arts, without Honours; but if, in any such department, he fails to attain to the standard of the Examination for graduation without Honours, he shall not be entitled, until he shall have passed in that department, to the Degree of Master of Arts. And no person, without the permission of the Senatus Academicus, can be admitted to an Examination for *Honours*, after he has ceased, for more than one Winter Session, to be a Matriculated Student, in attendance on a class or classes in the University.

II. There are four departments for Graduation in Arts with Honours, in any one or more of which, subject to the preceding Regulation, Students may present themselves for further Examination, viz.:—

A. Classical Literature,	Latin. Greek.
B. Philosophy, . .	Logic. Metaphysics. Moral Philosophy.

* After obtaining their Degree, Candidates should apply for their Diplomas at the office of the Secretary of the University. There is no additional charge for the Diploma. By Act of Parliament, 44 and 45 Vict., c. 40, all Candidates for graduation must pay at the Secretary's office the Registration Fee of £1 before they can be presented for graduation.

C. MATHEMATICS AND PHYSICS,	{ Pure Mathematics. Natural Philosophy.
D. NATURAL SCIENCE, . .	{ Geology. Zoology. Chemistry. Botany.

III. In each of the first three of the above-mentioned departments, viz., in Classical Literature, in Philosophy, and in Mathematics, there are *two* Grades of Honour, each representing, as nearly as possible, a uniform standard of qualification, and denominated respectively the FIRST CLASS and the SECOND CLASS. The names of candidates entitled to Honours, in each of these classes, are arranged in alphabetical order.

IV. In the department of Natural Science, there is only *one* class for Honours; and the names of candidates entitled to Honours in that class are arranged in alphabetical order.

V. The names of candidates to whom the Examiners award a First or Second Class in the Examination for Honours, will be duly published and retained in the UNIVERSITY CALENDAR, in the Class Lists, under the year in which the Honours were taken by them, and in the department or departments in which they were so classed.

ENTRANCE EXAMINATION FOR CURRICULUM OF THREE SESSIONS—SESSION 1882-83.

In terms of Regulation II., Entrance Examinations will be held by the Faculty of Arts in the University, on *Saturday, the 21st of October* 1882, at *Nine* o'clock, at which time Students entering their *First* Session in the Faculty of Arts, who desire to be enabled to complete their Curriculum in Arts within Three Winter Sessions, must present themselves for examination. At these Examinations they will be asked to translate—

1. A simple passage from Livy or Cicero into English;
2. A passage of plain English into Latin;
3. A passage from Xenophon into English;
4. A few easy sentences from English into Greek, for the sake of testing their knowledge of Greek Grammar and Elementary Syntax.

N.B.—Great stress will be laid on grammatical accuracy in the translation from English into Latin Prose.

Entrance Examination in Mathematics.

Students at the commencement of the *First* Session of their attendance at the University who desire, with a view to a Degree, to attend the Second Mathematical Class, without attending the First, will be examined on *Monday, the 23d of October*, at *Nine* o'clock.

The subjects of Examination will be Arithmetic; Euclid, Books i., ii., iii., iv., and vi., or their equivalent; Elementary Algebra and Trigonometry; and Conic Sections treated geometrically.

*** Specimens of the Examination Papers for 1881, in Latin, Greek, and Mathematics, are given in the Calendar.

N.B.—*The Names of successful candidates in the Latin and Greek, and also in the Mathematical Examinations will be published, with the names of the Schools from which the candidates have come, after they have shown their Matriculation Tickets to the Dean of the Faculty of Arts.*

PASS EXAMINATIONS FOR MASTER OF ARTS.

Programme for October 1882 and April 1883.

Pass Examinations for the Degree of Master of Arts will take place in *October* 1882, on the four following days, viz., Tuesday the 17th, Wednesday the 18th, Thursday the 19th, and Friday the 20th. The Examinations will be conducted in the following order :—

First Day, Tuesday, October 17.—Latin (9 to 11 and 12 to 2); Mathematics (2.30 to 4.30).

Second Day, Wednesday, October 18.—Mathematics (9 to 11); Greek (1 to 4).

Third Day, Thursday, October 19.—Logic and Metaphysics (9 to 12); Natural Philosophy (1 to 4).

Fourth Day, Friday, October 20.—Moral Philosophy (9 to 12); Rhetoric and English Literature (1 to 4).

Pass Examinations for the Degree of Master of Arts will also take place in *April* 1883, on the four following days, viz., Monday the 9th, Tuesday the 10th, Wednesday the 11th, and Thursday the 12th. The Examinations will be conducted in the following order :—

First Day, Monday, April 9.—Latin (9 to 11 and 12 to 2); Mathematics (3 to 5).

Second Day, Tuesday, April 10.—Mathematics (9 to 11); Greek (1 to 4).

Third Day, Wednesday, April 11.—Logic and Metaphysics (9 to 12); Natural Philosophy (1 to 4).

Fourth Day, Thursday, April 12.—Moral Philosophy (9 to 12); Rhetoric and English Literature (1 to 4).

*** *Candidates who have not completed their Curriculum in Arts are recommended by the Faculty to present themselves for examination in October rather than in April.*

The subjects for the Pass Examinations in October 1882 and in April 1883 are as follows :—

A.—Department of Classical Literature.

Latin.

Horace, *Satires*, *Epistles*, i.
Cicero, *Letters to Atticus*, i.
Tacitus, *Histories*, iii.
A passage from a Latin Author not prescribed.
Latin prose.
Roman History—General knowledge of the history of the Republic, and a minute knowledge of the period from the death of Sulla to the battle of Actium.
Roman Literature—Lives and works of Cicero, Virgil, Horace, and Tacitus.
Ability to translate into Latin prose is required of every Candidate.

Greek.

Thucydides, Book ii.
Isocrates, *Panegyricus*.
Euripides, *Bacchae*.
Homer, *Iliad*, Book vi.
A passage from an easy Greek Author, not prescribed.
Greek History and Literature.
Laws of Hexameter and Iambic verse.
A few sentences of plain English to be turned into Greek, which may not be omitted by any Candidate.

B.—Department of Philosophy.

Logic and Metaphysics.

The Class Lectures in Logic and Psychology.
Fowler's *Inductive Logic*.
The Professor's "*Berkeley*," in "Philosophical Classics" (Blackwood); "*Selections*," pp. 1-90; pp. 223-265.

Moral Philosophy.

The Class Lectures—"Handbook of Moral Philosophy;" Butler's Sermons, i.-iii.; Mackintosh's "Dissertation."

Rhetoric and English Literature.

Style and the Principles of Literature: Class Lectures.
History of the English Language: Lectures; and the First Five Chapters of Morris's "Historical Outlines of English Accidence."

History of English Literature, more particularly from 1580 to 1688: Lectures; Morley's Text-Book; and the portions of Hallam's "Literature of Europe" that relate to English writers of the period mentioned.

Special Readings required:—
Chaucer's *Clerkes Tale* (Clarendon Press Edition).
Shakespeare's *King Henry V.*
Milton's *Areopagitica* and *Samson Agonistes.*
Carlyle's *Essay on Burns.*

C.—Department of Mathematics and Physics.

Mathematics.

Arithmetic.
Euclid, Books i., ii., iii., iv., vi., and xi., or their equivalent, with their application to Mensuration.
Algebra, Trigonometry, Conic Sections, Geometrical and Analytical.

Candidates must show sufficient knowledge in each of the subjects of examination.

Natural Philosophy.

Elementary Dynamics.
Plane Astronomy and Experimental Physics.

Candidates must show sufficient knowledge both of Dynamics and of Experimental Physics.

The names and addresses of Candidates for the Degree of Master of Arts, or for Certificates in any of the three departments, who intend to present themselves in October 1882, must be announced to the *Secretary of the Senatus* not later than Saturday, the 14th of October; or for the Examinations in April 1883, not later than Saturday, the 24th of March.

In making the announcement to the Secretary, Candidates must mention the Department or Departments (if any) which they have already passed, and the dates of the corresponding Departmental Certificates. The Graduation Fee must be paid to the Secretary when the Candidate announces his name.

Certificates of attendance at the respective classes, with the Matriculation Ticket of the Candidate, must be produced to the Examiners, in the Examination Hall, on the *first* day on which the Candidate presents himself for examination in any Department. Candidates who have taken the Curriculum of Three Sessions, or who have passed Entrance Examinations in Latin, and Greek, or in Mathematics, or who have attended classes in this or any other Scottish University, must present the usual Certificates of having done so.

Candidates who have, in a former year, passed all the examinations necessary for Graduation, but without taking the Degree,

and who desire to present themselves at the Ceremonial of Graduation in April 1883, must, *at least ten days previously*, send their names and addresses, and their *Departmental Certificates*, to the *Secretary of the Senatus*.

EXAMINATIONS FOR GRADUATION IN ARTS WITH HONOURS.

(*Examinations for Honours are held in April only*).

PROGRAMME FOR APRIL 1883.

Examinations for Honours will commence on Friday, 13th April 1883.

The Examinations will be conducted in the following order :—

CLASSICAL LITERATURE.	Latin...April 13, 9 to 12, and 1 to 4; April 14, 9 to 12. Greek...April 14, 1 to 4; April 16, 9 to 12, and 1 to 4.
PHILOSOPHY.	Logic and Metaphysics.....April 13, 9 to 12, and 1 to 4; April 14, 9 to 12. Moral Philosophy.....April 14, 1 to 4; April 16, 9 to 12, and 1 to 4.
MATHEMATICS AND PHYSICS.	Mathematics.....April 13, 9 to 12, and 1 to 4. Natural Philosophy.....April 14, 9 to 12, and 1 to 4.
NATURAL SCIENCE.	2d and 3d April.

The subjects of Examination are as follows :—

A.—DEPARTMENT OF CLASSICAL LITERATURE.

Latin.

Lucretius, i., ii., iii., v.
Virgil, *Æneid.*
Juvenal.
Tacitus, *Histories.*
Pliny, *Epist.* i.-vi.
Latin Prose. Latin Verse optional. Translation from Latin Authors not prescribed.
Roman History—A general knowledge of the history of the Republic, and a minute knowledge of the period from the battle of Actium to the Accession of Vespasian.
Roman Literature. Poets, from Plautus to Juvenal.
N.B.—The questions in History and Literature will chiefly be directed to test a minute knowledge of the authors prescribed.

Greek.

Homer, *Iliad*, i.-viii. inclusive.
Aeschylus, *Agamemnon.*
Thucydides, i. and ii.

Aristophanes, *Knights.*
Demosthenes, *Contra Meidiam.*
Plato, *Protagoras.*
Aristotle, *Ethics,* i.-iv. inclusive.
Greek Prose Composition. Translation from Greek Authors not prescribed.
Greek History and Literature.

B.—Department of Philosophy.

Logic and Metaphysics.

The Advanced Class Lectures in Metaphysics and History of Philosophy.
The Professor's "Berkeley," in "*Philosophical Classics*" (Blackwood), and also "*Selections from Berkeley.*"
Plato, *Theætetus.*
Locke, *Essay on Human Understanding.*
Hume, *Inquiry concerning Human Understanding.*
Kant, *Critique of Pure Reason.*
Hamilton, *Lectures on Logic* and *Discussions,* i. ii.
Mill's *Logic,* Books iii. and v.
A general knowledge of the History of Philosophy.

Moral Philosophy.

The Class Lectures for Advanced Students.
Plato, *Republic,* i.-vii.
Aristotle, *Ethics,* (omitting v. vi. vii.)
Spinoza, *Ethics.*
Hume, *Principles of Morals.*
Reid, *Essays on Active Powers.*
Kant, *Metaphysic of Ethics.*

C.—Department of Mathematics and Physics.

The advanced portions of the Elements of Algebra, Trigonometry (Plane and Spherical), and Conic Sections, together with the ordinary portions of the Differential and Integral Calculus, and Calculus of Finite Differences (Elements of Quaternions at the option of the Candidate).

The Elements of Experimental Physics generally ; with the simpler applications of Mathematics to Dynamics, and to one or more branches of Natural Philosophy, such as Geometrical or Physical Optics, Frictional or Voltaic Electricity, at the option of the Candidate.

D.—Department of Natural Science.

CHEMISTRY.
BOTANY.
ZOOLOGY.
GEOLOGY.

The Candidate may select any Two of the above Subjects, in one of

which he will be subjected to an examination equivalent to that in the same subject at the *Second* B.Sc. examination; and in the other, to an examination of the same character as that required at the *First* B.Sc. examination.

Candidates must announce to the Dean, on or before March 24, the Subjects which they select.

Candidates who propose to present themselves at the Examination for Honours in April 1883, must intimate their names and addresses to the *Secretary of the Senatus*, not later than the 24th of March—specifying the Department or Departments for which they offer themselves.

No one who has ceased for more than one Winter Session to be a Matriculated Student in attendance on a class or classes in the University can be admitted to an Examination for *Honours* without permission of the Senatus Academicus.

No one can be admitted to Examination for a Degree, or to Graduation, who has not matriculated for the year in which he applies to be examined, or to be allowed to graduate.

A. CAMPBELL FRASER,
Dean of the Faculty.

SPONSIO ACADEMICA TO BE SIGNED BY GRADUATES IN ARTS.

Nos qui Nomina subsignamus Magisterii titulo jamjam donandi Spondemus nos in omni debitae gratitudinis officio erga Academiam Edinburgenam ad extremum vitae halitum perseveraturos.

GRADUATES IN ARTS.
HONOUR LISTS.

1862-3.

	Classics.	*Philosophy.*	*Mathematics.*
Class I.	———	———	———
Class II.	———	Dalrymple, Alex. M.	———

1863-4.

	Classics.	*Philosophy.*	*Mathematics.*
Class I.	Nicolson, W. Millar.[a]	Robertson, J.M.[b]	———
Class II.	———	———	———

[a] Min. F.C., Linlithgow. [b] Min. of Stow.

1864-5.

	Classics.	*Philosophy.*	*Mathematics.*
Class I.	———	———	———
Class II.	Jeffrey, T.*a*	Milne, James R.	———
		Muir, R. J.*b*	
		Natural Science.—Morrison, R.*c*	

1865-6.

	Classics.	*Philosophy.*	*Mathematics.*
Class I.	Bathgate, James C.	Lindsay, Thomas M.*d*	———
		Rae, John.	
Class II.	———	Bell, Benjamin.*e*	Blaikie, Jas. A.*f*
		Wallace, D. Mackenzie.*g*	Reoch, James.

1866-67.

	Classics.	*Philosophy.*	*Mathematics.*
Class I.	Peterson, Peter.*h*	Duncan, David.*i*	———
	Watson, George.*k*	———	———
Class II.	Thorburn, Wm. D.*k*	Rabagliati, Andrea.	Mowat, Martin.*l*
		Natural Science.—Nicholson, C. Patrick.	

1867-68.

	Classics.	*Philosophy.*	*Mathematics.*
Class I.	Colville, James.	Dunlop, A. Murray.	———
	Muir, Julius Wood.*m*	Hastie, William.*n*	———
	Omond, G. W. T.*o*	Omond, Thos. S.*p*	———
	Omond, Thomas S.*q*	———	———
	Wilson, Hugh.*r*	———	———
Class II.	———	Bain, J. A. K.	Muir, J. Wood.
	———	Cotton, George.	———
	———	Muir, Alexander.	———
	———	Omond, G. W. T.*o*	———
	———	Sanders, Robert.	———
	———	Smith, William.	———
	———	Thorburn, James B.	———

1868-69.

	Classics.	*Philosophy.*	*Mathematics.*
Class I.	Addis, David F.*m*	Forbes, George.	Galloway, Robert K.
	Durham, Wm.	———	Marshall, D. Henry.*s*
	Marshall, John.*t*	———	———
Class II.	———	Bonallo, James.*u*	Matthew, James.

a Classical Master in High School. *b* One of H. M. Inspectors of Schools.
c Vice-Principal, Scotch College, Melbourne.
d Prof. of Div. and Ch. Hist., F. Ch. Col., Glasgow. *e* F. C. Min. of Friockheim.
f H.M. Inspector of Schools. *g* Author of "Russia" (1877)
h Prof. of Sanscrit, Bombay.
i Professor of Logic and Moral Philosophy, Presidency Col., Madras. *k* Advocate.
l Professor of Mathematics, Presidency College, Bengal.
m Ind. Civil Service. *n* Principal of Church of Scotland College, Calcutta.
o Advocate. *p* Barrister-at-Law. *q* Fellow of St John's College, Oxford.
r H.M. Inspector of Schools. *s* Professor of Mathematics, Japan.
t Barrister-at-Law Prof. of Classics, Yorkshire Coll., Leeds. *u* Min. of Auldearn.

1869-70.

	Classics.	*Philosophy.*	*Mathematics.*
Class I.	Kirkup, Thos.	Mackinnon, Donald.*a*	———
	Walker, Thos.	Maclaren, C. Bright.*b*	———
	Wallace, James.*c*	———	———
Class II.	Platt, Henry.	M'Naughtan, Geo. D.	———

Natural Science.—Adams, D. Laird.*d*

1870-71.

	Classics.	*Philosophy.*	*Mathematics.*
Class I.	Raleigh, Thomas.	Adamson, Robert.*e*	Wood, Philip.*f*
	———	Shand, Alex. E.	———
Class II.	Roberton, Robt. C.	Chisholm, George G.	Ormond, J. M.

1871-72.

	Classics.	*Philosophy.*	*Mathematics.*
Class I.	———	Fraser, H. J. Ed.*c*	Lang, P. R. Scott.*g*
Class II.	———	Macmorran, Alex.	———

1872-73.

	Classics.	*Philosophy.*	*Mathematics.*
Class I.	Robert Clark.*h*	Donald Ross.*i*	Charles C. Grant.
Class II.	Charles W. Imrie.	———	———

1873-74.

	Classics.	*Philosophy.*	*Mathematics.*
Class I.	Anderson, T. D.	Ross, D. M.*k*	———
Class II.	Warren, J. C.	Reid, J.	Daniell, Alfred.
	———	Shaw, T.*l*	———

1874-75.

	Classics.	*Philosophy.*	*Mathematics.*
Class I.	Barbour, R. W.	Barbour, R. W.	Lundie, R. A.
	Macleish, A. L.	Momerie, A. W.*m*	MacDiarmid, J.
	Peterson, W.*n*	Sorley, W. R.*o*	Macfarlane, A.
	Ritchie, D. G.		
Class II.	Ferguson, J. W.	May, W.	Macleish, A. L.
	Ogilvie, W. P.		
	Sym, J. D.		

a Secretary to Edinburgh School Board. *b* Barrister-at-Law, and M.P. for Stafford.
c Advocate. *d* Prof. of Hebrew and Oriental Languages, University of Edin.
e Professor of Logic and Mental Philosophy in Owens College, Manchester.
f Head Master, Queen Elizabeth's School, Darlington.
g Prof. of Math., St Andrews.
h Fellow of New College, Oxford. *i* H.M. Inspector of Schools.
k Minister of St John's Free Church, Dundee. *l* Advocate.
m Prof. of Logic, King's College, London. *n* Fellow of Jesus College, Oxford
o Trinity College, Cambridge.

1875-76.

	Classics.	*Philosophy.*	*Mathematics.*
Class I.	Cownie, R. J.	Haldane, R. B.*a*	Howat, John R.
	Gardiner, G. B.	———	Mackenzie, H. W. G.
	Greig, Charles E.	———	Paton, James A.
Class II.	Gilray, Thomas.*b*	Greig, Charles E.	———
	———	Philip, Adam.	———

1876-77.

	Classical Literature.	*Philosophy.*	*Mathematics.*
Class I.	Capper, J. B.	Porteous, John.	Hunter, J. A. W.
	Orr, R. L.	Stalker, A. M.	Raitt, William.
	———	———	Robson, H. C.
Class II.	Macgregor, Duncan C.	Grant, J. F. W.	———
	Robson, Samuel.*c*	Watt, Francis.	———

1878.

	Classical Literature.	*Philosophy.*	*Mathematics.*
Class I.	Mackail, J. W.*d*	Seth, A.	Traill, D.
	Seth, A.	———	Walker, W. O.
	Stobo, J.	———	Wood, L. B.
Class II.	Porteous, A. M.	———	Low, T.
	———	———	Stobo, J.
	———	———	Thomson, W., B.Sc.
	———	———	Walker, S.

Natural Science.—Limont, J.; Smith, J.

1879.

	Classical Literature.	*Philosophy.*	*Mathematics.*
Class I.	Lambert, J. C.	Ballantyne, J. H.	Küchler, G. W.
	Watson, Mungo.	———	Welsh, William.
Class II.	Liddall, W. J. N.	Macphail, W. M.	Milne, William.
	Macpherson, Wm. G.	———	———

1880.

	Classical Literature.	*Philosophy.*	*Mathematics.*
Class I.	Capper, S. H.	Martin, A.	Macdonald, J.
	Hardie, W. R.	Robertson, J. D.	———
	Mackay, R. J.	———	———
Class. II.	Paterson, W. P.	Mitchell, R.	Barclay, A. J. G.
	Robertson, W.	Smith, W.	Sutherland, J.
	Walton, J. G.	———	———

Natural Science—Grant, A.; Morgan, D. M.

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a Barrister-at-Law. *b* Head Master, Glas. Academy. *c* Bengal Educa. Serv
d Exhibitioner and Honorary Scholar of Baliol College, Oxford.

1881.

	Classical Literature.	*Philosophy.*	*Mathematics.*
Class I.	———	Gardner, James.	Stewart, F. W.*a*
	———	Mackenzie, W. Douglas.	———
	———	Macleod, Donald.	———
	———	Shennan, Hay.	———
	———	Seth, James.	———
Class II.	Hutt, A. H.	Hutton, A. Watson.	Allan, C. E.

1882.

	Classical Literature.	*Philosophy.*	*Mathematics.*
Class I.	Macdonald, G.	Carrie, W. Lowe.	Allardice R. Edgar.
	———	Oman, John W.	———
	———	Weir, James.	———
Class II.	Adams, T.	Gardner, James F.	———

Names of those who, by passing the Ordinary Examinations, obtained the

DEGREE OF MASTER OF ARTS.

26th November 1881.

M'Phail, J. R. Nicolson. | Parr, Theophilus.

21st April 1882.

Allan, W.
Aird, J.
Andrew, J. G.
Arthur, R.
Barrie, J. M.
Baxter, D.
Balfour, J.
Balfour, P. G.
Begbie, W. E.
Braik, G. D.
Brown, J. A.
Bryce, T. H.
Campbell, W. B.
Chalmers, T.
Curror, D. A.
Dewar, A.
Drysdale, C. K.
Duff, D.
Ferguson, J.
Ferguson, R.
Gow, L. H.
Guild, J. E.
Hamilton, J. W.
Johnston, J.
Kerr, W. H.
Kinmont, A. W.
Law, G.
Law, R.
Littlejohn, H. H.
Lowson, D. S.
M'Dougall, A.
M'Dougall, A. W.
M'Ewen, R. F.
Mackie, M. H.
Mackay, W.
Mackenzie, D. F.
Mackenzie, R. W. C.
MacNish, D.
M'William, T.
Marwick, J.
Menzies, A. J. P.
Middlemas, J.
Millar, J.
Milne, G. L. H.
Murray, A. A.
O'Neil, J. N.
Rainy, A. R.
Richardson, W.
Robertson, A.
Robertson, W. L.
Ross, J. M.
Rowand, A.
Scott, J. D.
Scott, T. O.
Shiels, W. L.
Smith, P.
Steel, A.
Stephen, W.
Struthers, A.
Teape, W. M.
Telfer, A. P.
Tolmie, A. M. C.
Watson, A. D.
Watt, J. S.
Waugh, G.
Welch, J. L.
Young, A.
Young, W

a Bruce of Grangehill and Falkland's Scholar.

In addition to the above, 9 Candidates passed the Ordinary Examinations in the three Departments, but without at present taking the Degree.

At the Examinations in *October* 1881, 44 Candidates obtained Certificates in the Department of Classical Literature, 7 in the Department of Mental Philosophy, and 19 in the Department of Mathematics.

At the Examinations in *April* 1882, 114 Candidates obtained Certificates in the Department of Classical Literature, 85 in the Department of Mental Philosophy, and 80 in the Department of Mathematics.

REGULATIONS FOR CERTIFICATE OF "LITERATE IN ARTS." (L.A.)

Approved in 1880.

The following are the Regulations for this Certificate :—

1. There shall be instituted in the Faculty of Arts a University Certificate conferring on those who obtain it the title of "Literate in Arts."

2. The said Certificate shall be open to persons who have been students in the Faculty of Arts for not less than Two Sessions ; and who have during that time given attendance on not less than five classes in the said Faculty, so as to include four at least of the seven subjects necessary for Graduation in Arts.

3. The Examinations for the said Certificate, in the four (or five) subjects which are also necessary for the degree of Master of Arts, shall be the ordinary graduation examinations in Arts in such subjects ; and the examination in any subject not in the course of study necessary for the degree of Master of Arts shall be of a standard equivalent to that of the ordinary graduation examinations in Arts.

4. The examinations for the Certificate may be taken either at one or at two periods, at the option of the Candidate. When divided, the First examination must embrace at least two out of the five necessary subjects ; the Second examination must embrace the remaining subjects.

5. The fee for the Certificate of Literate in Arts shall be two guineas. When the five necessary subjects are all taken at

one examination, in April or in October, the fee is £2, 2s.; and when the examination is divided the fee is £1, 1s. on each of the two occasions.

6. The Title of Literate in Arts is not open to persons whose qualifications for the Certificate are entirely of a date anterior to April 1880.

The names and addresses of Candidates for the title of LITERATE IN ARTS who desire to be examined in *October* 1882 must be intimated to the "*Secretary of the Senatus, University, Edinburgh*," not later than Saturday, the 14th of October; and of those who desire to be examined in *April* 1883 not later than Saturday, 24th March. They must at the same time mention the subjects on which they desire to be examined, as well as the subjects (if any) in which they have already been examined, and the date of such previous examination. The Fee must be paid when the intimations are made.

The October and April Examinations will be held on the days and at the hours fixed for the ordinary examinations for the degree of Master of Arts (see *Calendar*), and by means of the same examination papers, in all the subjects for the title of L.A. that are also necessary for the degree of M.A.

Those candidates who select the "Theory, History, and Art of Education" as one of the five subjects will be examined on the Professor's Lectures, Comenius's Educational Writings, Herbert Spencer on Education, Locke's "Thoughts on Education," with the relative parts of Locke's "Conduct of the Understanding."

CERTIFICATE OF L.A.

21st April 1882.

Anderson, J. C., in Logic and Education.
Barrett, Arthur, in Logic and Education.
Dawson, David, in Logic and Education.
Dick, Robert, in Logic and Education.
Hay, Alexander, in Logic and Education.
Howie, Ghosn El, in Logic, Moral Philosophy, and Rhetoric.
Rennie, James, in Logic, Mathematics, and Education.
Syme, G. P., in Logic and Education.
Tait, J. W., in Logic and Education.
Thomson, Frederick, in Logic and Education.

Graduation in Divinity.

REGULATIONS FOR THE DEGREE OF BACHELOR OF DIVINITY.

APPROVED OF BY THE CHANCELLOR OF THE UNIVERSITY 17th OCTOBER 1870, and 17th April 1872.

I. No one shall be admitted as a Candidate for the Degree of Bachelor of Divinity unless he be a Graduate in Arts of one of the Universities of Scotland, or of England, or of Ireland, or of a Colonial University, whose degrees shall, for this purpose, have been specially recognised by the University Court.

II. This Degree shall be conferred only after the Candidate has completed his Theological Curriculum with a view to the ministry in the Church or Denomination to which he belongs, and after he has passed a satisfactory examination in the various branches of Theology which are taught in this University.

III. Candidates who are not Masters of Arts of the University of Edinburgh must have attended two classes in one or more of the Faculties of this University.

IV. The subjects of examination for the Degree of Bachelor of Divinity shall be arranged in two departments :—The First Department embracing—(1) Hebrew, and (2) Apologetic Theology, or the Evidences of Natural and Revealed Religion ; and the Second Department embracing—(1) Church History, (2) Systematic Theology, Criticism and Biblical Antiquities.

V. Candidates who have completed their Theological Course may be examined in either of these departments, and may defer to some future occasion their examination in the other department, provided always that there be not a greater interval than two years between their two examinations.

VI. Students who have completed all the Sessions but one of their Theological Course, may be admitted to examination in the first department.

VII. The examinations shall be conducted by the Professors of the Theological Faculty with the assistance of two Examiners, being Bachelors of Divinity of one of the Universities of Scotland, to be nominated by the University Court.

VIII. The Examination in the First Department shall take place at, or soon after, the commencement of the Theological Session ; and the Examination in the Second Department at, or soon after, the close of the Theological Session—power being reserved to the Senatus Academicus, should they see cause, to appoint the examination in both departments to take place at either of these periods.

IX. The Fee for examination shall be Three Guineas, payable in advance; but when the examination is undergone on different occasions, a Fee of two Guineas shall be paid prior to the first, and the remaining One Guinea prior to the last examination.*

There will be an examination in both departments on Wednesday, October 25th, 1882, and following days; and also on Tuesday, April 3d, 1883, and following days. (October 25th and April 3d), Apologetics and Hebrew; (October 27th and April 4th), Church History and Divinity; (October 28th and April 5th), Biblical Criticism, beginning each day at 10 A.M. Candidates are required to communicate their names, together with evidence of their being qualified in terms of the above Regulations, to the Dean of the Faculty of Theology, at least one week before the day appointed for the Examination.

The subjects of examination are as follows:—

DEPARTMENT I.

I. *Apologetic Theology*—
  (1.) Unbelief in the Eighteenth Century.
  (2.) Prophecy.
  (3.) Argument from the Person and Work of Christ.

II. *Hebrew*—
  (1.) Questions in Grammar.
  (2.) Translation into Hebrew Prose.
  (3.) 2d Book of Samuel.
  (4.) Ps. cxx. to end of book.
  (5.) Books of Obadiah, Jonah, and Micah.

DEPARTMENT II.

I. *Systematic Theology*—
  (1.) The Person of Christ.
  (2.) The Mediatorial Work of Christ.
  (3.) The Person and Work of the Holy Spirit.

II. *Church History*—
  (1.) The Main Facts in the Development of the Constitution, Doctrine, and Worship of the Church during the first Four Centuries. (2.) The Progress of the Reformation in Scotland to the close of the 16th Century.

III. *Biblical Criticism and Biblical Antiquities*—
  Manuscripts, Versions, Critical Editions, and Disputed Passages of the New Testament. *See* "Scrivener's Introduction," 2d edition.
  The Pentateuch—Authorship and Composition.
  The Heretics and the Canon in the second century. *See* "Canonicity," Text and Introduction.

A. H. CHARTERIS, D.D.,
Dean of the Faculty of Divinity.

* All Candidates must matriculate before Examination. They are also required before Graduation to pay the Registration Fee of £1 now made compulsory by Act of Parliament.

BACHELORS OF DIVINITY.

1st August 1881.

Archibald Torrance, Scotland.

21st April 1882.

W. H. Campbell, M.A.
Thomas Crosby, M.A.
John Dobie, M.A.
Peter Duncan, M.A.
Hugh Falconer, M.A.
Henry Farquhar, M.A.
Alexander Horn, M.A.
J. C. Lambert, M.A.
Robert Mackintosh, M.A.
John Nicoll, M.A.
A. M. Porteous, M.A.
J. R. Sabiston, M.A.
J. W. Slater, M.A.
John Campbell Tibb, M.A.
William Thompson, M.A.

DEGREE OF DOCTOR OF DIVINITY (D.D.).

The Degree of Doctor of Divinity is conferred *honoris causâ tantum*. The Register of Doctors of Divinity commences in 1709, with the names of Edmund Calamy, Daniel Williams, and Joshua Oldfield. The names of Evans, Harris, and Isaac Watts follow in 1728. The Register now includes above 300 names.

The following is a list of those who have received the Degree of Doctor of Divinity within the last thirty years :—

1854.

James Veitch, one of the Ministers of St Cuthbert's, Edinburgh.
James Grierson, Minister of the Free Church, Errol.
William Logie, Minister of Kirkwall.

1855.

John Lillie, New York.
John Forrest, Charlestown, South Carolina.
Peter Colin Campbell, Principal of the University of Aberdeen.
John Cairns, Minister of the U. P. Church, Berwick-upon-Tweed.
John Taylor, Prof. of Divinity in the Presbyterian College of Canada.

1860.

Samuel Richardson, Minister of Penninghame.
Sir H. W. Moncreiff, Bart., Minister of St. Cuthbert's Free Ch., Edin.
John Cunningham, Minister of Crieff.
Thomas Burns, Minister of Free Church, Otago.

1864.

Zachary Macaulay Hamilton, Minister of Bressay.

Robert Menzies, Minister of Hoddam.
W. Hanna, LL.D., one of the Ministers of St John's Free Ch., Edin.
William Garden Blaikie, Minister of Pilrig Free Church, Edinburgh.
And. Kennedy Hutcheson Boyd, Minister of St Bernard's Parish, Edin.
A. Roberts, Minister of the Presbyterian Church, Carlton Hill, London.

1865.

Robert S. Candlish, Principal of New College, Edinburgh.
Josiah Leslie Porter, Professor of Biblical Criticism, Belfast.
Lewis Edwards, Principal of the College of Welsh Methodists at Bala.

1867.

George Walker, Minister of Kinnell.
Thomas Smith, M.A., Minister of Cowgate-head Free Church.
David Pitcairn, late Minister of Evie and Randall.
Maxwell Nicholson, St Stephen's Church, Edinburgh.

1868.

Joseph Mullens, India.
Richard Paul Blakeney, LL.D., Rector of Christ Church, Birkenhead.
Archibald Hamilton Charteris, Minister of The Park Church, Glasgow.
And. B. Davidson, LL.D., Professor of Hebrew, Free College, Edin.
Thomas Finlayson, Minister of the United Presbyterian Church, Edin.
William Lee, Minister of Roxburgh.
William Robertson, Minister of New Greyfriars, Edinburgh.
R. Selkirk Scott, Minister of the U. P. Church, Manchester.

1869.

Frederick Crombie, Professor of Biblical Criticism, University of St Andrews.
John Ker, Minister of the U. P. Church, Glasgow.
Kenneth Macleay Phin, Minister of Galashiels.
Henry Robert Reynolds, Principal of Cheshunt Coll., Herts.
George Smeaton, Professor of Exegetical Theology, Free Church Coll Edinburgh.
William Smith, Minister of North Leith.
John Stoughton, Minister of the Independent Church, Kensington.

1870.

Alexander L. R. Foote, Minister of West Free Church, Brechin.
John Harrison, Vicar of Fenwick.
Enoch Mellor, Minister of the Congregational Church, Halifax.
George Ritchie, Minister of Jedburgh.
Archibald Stewart, Minister of Glasserton.
William Wilson, Minister of St Paul's Free Church, Dundee.

1871.

James Cochrane, Minister of Cupar.
Alexander Leitch, Minister of U. P. Church, Wigton, Cumberland.
James M'Gregor, Professor of Systematic Theology, Free Church College, Edinburgh.
James Walker, Minister of the F. C., Carnwath.

1872.

John Kennedy, Minister of the Congregational Church, Stepney, London.
Hugh Martin, Emeritus Minister of Free Greyfriars' Church, Edinburgh.
Robert Moffat, Missionary to South Africa.
Robert Horne Stevenson, Minister of St George's Church, Edinburgh, and Moderator of the General Assembly of the Church of Scotland.

1873.

Marcus Dods, Renfield Free Church, Glasgow.
J. Oswald Dykes, Regent Square Presbyterian Church, London.
John Forbes, Professor of Oriental Languages University of Aberdeen.
John Stuart, Minister of St Andrews Church, Edinburgh.

1874.

Andrew A. Bonar, Minister of Finnieston Free Church, Glasgow.
John Christison, M.A., Minister of Biggar.
William Fiddian Moulton, Professor of Classics, Wesleyan College, Richmond.
Robert Herbert Story, Minister of Roseneath.

1875.

Joseph Edkins, Missionary, China.
Alexander Moody Stuart, Minister of Free St Luke's, Edinburgh.

1876.

A. M. Fairbairn, Minister of Free Church, Newhaven.
Robert Flint, Professor of Divinity, University of Edinburgh.
Robert Johnston, Parliamentary Road U.P. Church, Glasgow.
M. de la Harpe, Professor of Oriental Languages and Old Testament Exegesis in the School of the Evangelical Society of Geneva.
M. Lantaret, Minister of the Waldensian Church, Pomaret.
John Wilson, Minister of Dunning.

1877.

Alexander Maclaren, Minister of the Baptist Church, Manchester.
W. B. Pope, Theological Tutor, Wesleyan College, Didsbury.
John Rogers, Professor of Sacred Rhetoric, General Assembly's College, Belfast.
W. Sanday, M.A., Oxon., Principal of Bishop Hatfield's Hall, University of Durham.

1878.

John Birrell, M.A., Professor of Hebrew and Oriental Languages, University of St Andrews.
A. M. Fairbairn, M.A., Principal of Airedale College, Bradford.
Stanley Leathes, M.A., Prebendary of St Pauls, Professor of Hebrew King's College, London.

James Russell, M.A., Minister of Yarrow.
Adolph Saphir, B.A., Minister of the English Presbyterian Church, Notting Hill, London.
Robert Stevenson, Minister of Dalry, Ayrshire.

1879.

Hugh Macmillan, LL.D., Free Church, Greenock.
George Matheson, B.D., Minister of Church of Scotland, Inellan.
Alexander Johnstone Ross, Vicar of St Philip's, Stepney, London.
Williamson Shoolbred, M.A., Missionary in India of the U.P. Church.

1880.

John Laidlaw, M.A., Minister of the Free Church, Aberdeen.
S. C. Malan, M.A., Vicar of Broad Windsor.
John Rankine, Minister of the Church of Scotland, Sorn.
James Wardrop, Minister of the United Presbyterian Church, West Calder.

1881.

Frederick L. Robertson, Minister of St Andrew's Parish, Glasgow.
W. Fleming Stevenson, B.A., Minister of the Irish Presbyterian Church, Rathgar, Dublin.
Alexander Whyte, M.A., Minister of Free St George's Church, Edinburgh.

1882.

Eustace Conder, Professor of Divinity, English Congregational Church.
Henry Wallis Smith, Minister of Kirknewton.
Henry Wace, M.A., Prof. of Ecclesiastical History, King's College, Lond.
James Hood Wilson, Minister of Barclay Free Church, Edinburgh.

Graduation in Law.

DEGREES OF BACHELOR OF LAWS (LL.B) AND BACHELOR OF LAW (B.L).

Two Degrees in Law are conferred by Examination in the University of Edinburgh, viz., Bachelor of Law (B.L.) and Bachelor of Laws (LL.B.).

The Degree of B.L. admits to the Profession of Law Agent, provided an Examination in the Practice of the Courts is passed to the satisfaction of the Examiners under the Law Agents Act.

The Degree of LL.B. admits to the Profession of Advocate without further examination.

Both Degrees qualify for admission to the General Council of the University.

Candidates for the Degree of LL.B. must have previously graduated as M.A. in a Scottish University, or in some other University approved of by the Senatus and University Court.

Candidates for the Degree of B.L. do not require to have graduated as M.A.; but if they have not done so, a Preliminary Examination in general knowledge must be passed according to the Regulations after stated.

By a Resolution of the Faculty of Law, Candidates with the necessary preliminary qualification for either Degree, may present themselves for the Law Examination in any number not less than two of the subjects in which an Examination in Law has to be passed, and they may present themselves for Examination in the subjects in which they have not already passed at a subsequent Examination. Until further notice there will be only one Examination in Law for degrees in each year, and it will be held on the last Monday in June. The next Examination commences on Monday the 26th June 1882. In 1883 the Examination will commence on the last Monday in June.

The Degree of Bachelor of Laws was instituted by an Ordinance of the Universities' Commissioners, dated 12th July 1862. The Degree of Bachelor of Law (B.L.), was instituted by the University, and approved by Her Majesty by order in Council, dated 6th August 1874.

The rules of the Ordinance are—

"I. No one shall hereafter be admitted as a candidate for the Degree of Bachelor of Laws (LL.B.) . . . unless he be a Graduate in Arts of one of the Universities of Scotland, or of England or Ireland, or a Graduate in Arts of a colonial or foreign University, whose Degree may, for this purpose, have been specially recognised by the University Court.

"II. The Course of Study in Law necessary for the Degree of Bachelor of Laws shall extend over three Academical years, and shall include attendance on a Distinct Course in each of the six following Departments, viz.:—

1. Civil Law	During Courses of not less than Eighty Lectures each.
2. Law of Scotland	
3. Conveyancing	
4. Public Law	During Courses of not less than Forty Lectures each.
5. Constitutional Law and History	
6. Medical Jurisprudence	

"III. No one shall hereafter be admitted to Examination as a candidate for the Degree of Bachelor of Laws, until he has completed the course of study above prescribed; and no one shall be admitted as a candidate in any University unless two at least of the three Academical years of his course of study in Law shall have been in such University.

"IV. Candidates for the Degree of Bachelor of Laws shall be examined, both in writing and *viva voce*, on each of the six Departments of Law above specified.

"V. Each candidate must satisfy the Examiners that he possesses a

competent knowledge of Law in each of the said Departments; and the Examiners shall further, in judging of the qualifications of candidates, have special regard to their acquirements in the two Departments of Public Law and Constitutional Law and History.

"VI. Except, as hereinafter provided, with regard to the University of Edinburgh, the Examiners for Degrees in Law in each of the said Universities shall be six in number, and there shall always be one Examiner specially qualified for each one of the six Departments above specified; and where the Professors in the Faculty of Law in any University do not furnish the requisite number of Examiners duly qualified, the number shall be made up by the appointment of additional Examiners by the University Court: Provided always, that no person shall be appointed an additional Examiner in any University unless he be a Professor in the Faculty of Law in a Scottish University, or shall have obtained the Degree of Bachelor of Laws in accordance with the provisions of this Ordinance.

"IX. Each candidate for the Degree of Bachelor of Laws shall pay a Fee of Five Guineas in respect of his Examination for the Degree.*

[For First Examination, . . £3 3 0
For Second do., . . 2 2 0]†

"XI. Besides the Degrees in Law above specified, there shall be in the University of Edinburgh a second Degree in Law granted after Examination—namely, the Degree of Bachelor of Law (B.L.).

"XII. No one shall be admitted to Examination as a Candidate for the Degree of Bachelor of Law in the University of Edinburgh, unless he be a Graduate in Arts, qualified as prescribed in Section I., or unless he shall have studied in one of the Universities therein mentioned, during at least one Academical year, one or more of the subjects included in the course of Study in the Faculty of Arts, and shall have passed a satisfactory Examination in (1.) Latin, (2.) Greek, French, or German, and (3.) any two of the following subjects—namely, Logic, Moral Philosophy, and Mathematics. The Examinations shall be conducted by Examiners in Arts, together with some of the Law Examiners.‡

"XIII. The course of study in Law necessary for the Degree of Bachelor of Law in the University of Edinburgh shall extend over at least two Academical years, and shall include attendance on a distinct course, as specified in Section II., in each of the first three of the De-

* Every Candidate for a Degree in Law must matriculate at the University for the year in which he appears for Examination or Graduation.

† No fee is payable in respect of any Examination after the second.

‡ Candidates must pass all the subjects, other than French or German, at the Ordinary Examinations for the Degree of M.A. in April and October; or, if they present themselves for Examination in French or German, at the Preliminary Examination for the Medical Faculty in March or October (for which *see* REGULATIONS FOR DEGREES IN MEDICINE.)

partments therein mentioned, and in any one of the other three Departments, and no one shall be admitted to Examination as a Candidate for the said Degree, unless two Academical years of his course of Study in Law shall have been in the University of Edinburgh.

"XIV. The Examination for the said Degree of Bachelor of Law in the University of Edinburgh shall be conducted at the same time, and in the same manner, as that for the Degree of Bachelor of Laws, and the Candidates shall be examined in each of the Departments of Law on which they shall have given attendance, as above required.

"XV. The Examiners for Degrees in Law in the University of Edinburgh shall be the Professors in the Faculty of Law, together with two additional Examiners appointed by the University Court from among those who have obtained the Degree of Bachelor of Laws, in accordance with the provisions of this Ordinance. Each of such additional Examiners shall hold office for the term of three years.

"XVI. The Fee to be paid by each Candidate for the Degree of Bachelor of Law in the University of Edinburgh shall be the same as is provided by Section IX. with reference to Examinations for the Degree of Bachelor of Laws."

[For Preliminary Examination in Arts,	£1	1	0
For First Examination in Law, .	2	2	0
For Second do. .	2	2	0]*

Gentlemen proposing to enter for either of the above Degrees are requested to apply for information to the Clerk to the University, and to lodge their names with him on or before the 20th June. Candidates for the Degree of LL.B. must produce evidence of their being Graduates in Arts.

The Examinations commence on Monday 26th June at 10 o'clock.

In the CIVIL LAW the examination will be on the History of the Law of Rome; on its Principles as explained in the Institutes of Gaius and Justinian; and on Book vi., tit. 1, Book xli., tits. 1 and 2, and Book xlv., tit. 1 of the Digest.

In the LAW OF SCOTLAND the subject of examination will be the Municipal Civil Law, and the works of Mr Erskine and Mr G. J. Bell are recommended to candidates.

In CONVEYANCING the subject of Examination will be the Constitution of Heritable Rights and their Transmission *inter vivos* and *mortis causa*.

In PUBLIC LAW the subjects will be the following:—1*st*, *Natural Law* in relation to Ethics on the one hand, and to Positive Law on the other.) (*Text-Books*—Lorimer's "Institutes of Law," and Ahrens' "Cours de Droit Naturel"). 2*nd*, *Public International Law*, doc-

* No fee is payable in respect of any Examination after the Second Examination in Law. The Registration Fee of £1, payable before graduation, is now made compulsory by Act of Parliament.

trinally and historically treated. (*Text-Books*—Wheaton's History; Kent's "International Law" by Abdy; Bluntschli's "Moderne Völkerrecht," of which there is a French translation entitled "Droit International Codifié"). 3*d*, *Private International Law*, as explained in the 8th vol. of Savigny's "System des heutigen römischen Rechts" (of which there is both an English and a French translation).

In CONSTITUTIONAL LAW AND HISTORY the subjects of examination will be as follows:—1. The Constitutional History of England from the accession of Henry VII. to the accession of Victoria. 2. The Constitution, Powers, and Privileges of Parliament, including the Law relating to Election of Members of Parliament.

In MEDICAL JURISPRUDENCE the subjects will be—1. Death by Asphyxia. 2. Poisoning by Phosphorus, by Prussic Acid, and by Aconite. 3. Infanticide. 4. Criminal Responsibility.

JAS. MUIRHEAD,
Dean of the Faculty of Law.

[*Note.*—Candidates for the degree of Bachelor of Law are required to pass the preliminary subjects at the ordinary examinations for the Degree of M.A. in April and October, except French and German, in which a special day will be fixed for examination. See subjects prescribed under Pass Examination for Degree of M.A.]

DEGREE OF LL.B.

1864.
Francis Deas, M.A. Edin.

1865.
Richard Vary Campbell, M.A. Glasg.

1866.
William F. Hunter, M.A. Edin.
Andrew Jackson, M.A. Edinb.
Thomas Mure Mure, M.A. Edin.
Alexander Thorburn, M.A. Edin.

1867.
Æneas J. G. Mackay, M.A. Oxon.

1868.
John M'Kie Lees, M.A. Edin.
Charles Archibald Millie, M.A. Edin.

1869.
William Hunter, M.A. Edin.

1870.
John Hastie, MA. Edin.
John Kirkpatrick, M.A. Cantab.
David Lang, M.A. Glasg.
John C. Lorimer, M.A. Glasg.
William Stevenson Purves, M.A. Glasg.
Roderick H. G. Scott, M.A. Edin.

1871.
George Cotton, M.A. Edin.
James Galbraith, M.A. Glasg.
Henry Goudy, M.A. Edin.
Thomas Kerr, M.A. Edin.
Allan Macdonald, M.A. St And.
William C. Smith, M.A. Edin.

1872.
George Readman, M.A. Glasg.
ohn Arbuthnott Trail, M.A. Aberd.

1874.
James Donaldson Fairley, M.A. Glasg.

1875.
Thomas Shaw, M.A. Edin.

1876.
Peter J. Anderson, M.A. Aberd.

1877.
James Macbride Dickson, M.A. Edin.
John Munn Gun, M.A. Glasg.

1878.
James Reid, M.A. Edin.
Alexander Stewart Duff Thomson, B.A. New York.

1879.
John Ferguson M'Lennan, M.A. Aberd.

1880.
David Donaldson Buchan, M.A. Edin.
Hay Macwatt, M.A. St And.
James Gardner Millar, M.A. Edin.
George Lea Thorne, M.A. Edin.

1881.
Edward Theodore Salvesen, M.A. Edin.
James Farie Anderson, M.A.
John Chisholm, M.A.
Edward Lake Crole, M.A.
Robert Low Orr, M.A.
Robert Bowie Shearer, M.A.
James Stuart Yates, M.A.

DEGREE OF B.L.

1875.

Robert Hislop.

1876.

James Macbride Dickson.

1877.

James Mackenzie Leith.
George Rankin.

1878.

John Ferguson M'Lennan, M.A. Aberd.

1879.

John Craigie.
George Hedger Black.
Walter James Lewis.
John Macgregor.
Michael Pithie.
Edwin Hedley Smith.
John Wilson.

1880.

Robert John Davidson, M.A. St And.
William Kinniburgh Morton.
James Wilson Plenderleith.
James Robert Russell.
John Small.
William Walker.

1881.

Andrew Vannan Begg, M.A.
Alexander Small.

DEGREE OF DOCTOR OF LAWS (LL.D.)

The Degree of Doctor of Laws is conferred *honoris causâ tantum*. It was first granted in 1695. Previously to 1751 it had been conferred on only seven persons. Since then about 300 names, including some of the most distinguished in Europe, have been added to the Register of Doctor of Laws in the University.

The following is a list of those upon whom the Degree of Doctor of Laws has been conferred within recent years :—

1845.

Right Hon. Earl Russell.

1847.

Richard Owen, London.

1848.

George Biddell Airy, Astronomer-Royal.

1853.

The Chevalier Bunsen, Prussian Ambassador, London.

1854.

George Finlay.
William Freund.

1855.

Rev. William Anderson, Professor of History, Agra College, East Indies.

1856.

John Harkness, late Principal of the Elphinstone Institution, Bombay.
Rev. John Young.
James Stephen, Professor of English Law and Jurisprudence in King's College, London.

1858.

James Frederick Ferrier, Advocate, Professor of Moral Philosophy, St Andrews.
Right Hon. Lord Elcho.
John Schank More, late Professor of Scots Law.
Right Hon. John Inglis, of Glencorse, Lord Justice-General.
James Moncreiff, M.P., Dean of the Faculty of Advocates.
Charles M'Douall, Professor of Greek, Queen's University, Ireland.

1859.

Right Hon. Lord Campbell, late Lord Chancellor.
Sir Andrew Smith, late Director-General of the Army Med.-Dep.
Right Hon. Lord Brougham and Vaux, Chancellor of the University.

1860.

Right Hon. W. E. Gladstone, Lord Rector of the University.
Very Rev. Dean Ramsay.
Hon. Lord Neaves.
James David Forbes, Principal of the United College, St Andrews.
Hon. Lord Barcaple.
Rev. Henry Longueville Mansel, Professor of Moral and Metaphysical Philosophy, Oxford.
Archibald Campbell Swinton, formerly Professor of Civil Law.
Lord Colonsay.
William Stokes, M.D., Regius Professor of Physic in the University of Dublin.
John Forster, London.
William Sharpey, Professor of Anatomy, University College, London.
Rev. William Reeves, D.D., University of Dublin.
William Allen Miller, Professor of Chemistry, King's College, London,
William Fairbairn, F.R.S., Manchester.
Sir Charles F. Shand, Chief-Justice of the Mauritius.

1861.

Right Hon. Sir John M'Neill, G.C.B.
Sir William Stirling-Maxwell of Pollok, M.P.
John Muir, D.C.L.

1862.

Sir William Jardine of Applegarth, Bart.

1863.

Right Hon. Viscount Palmerston, K.G.
William Henry Fox Talbot, F.R.S.
James Pillans, Professor of Humanity, University of Edinburgh.

1864.

David Laing, Librarian to the Society of Writers to the Signet.
John Hill Burton, Advocate.
Joseph Robertson, H.M. Register House.

1865.

Sir Alexander Grant, Bart.
W. F. Skene, F.R.S.E.
George Dundas, Sheriff of Selkirkshire.
A. Keith Johnston, F.R.S.E.
Balfour Stewart, F.R.S.

1866.

Thomas Erskine of Linlathen.
Thomas Henry Huxley, Professor of Natural History, School of Mines, and Hunterian Professor of Comparative Anatomy in the Royal College of Surgeons of England.
John Rae, M.D.
Andrew Crombie Ramsay, Director of the Geological Survey of Great Britain.
John Tyndall, Professor of Natural Philosophy in the Royal Institution, London.
H. R. H. Prince Alfred.
Andrew Edgar, Barrister-at-law, London.

1867.

James Hutchison Stirling.
Right Hon. Benjamin Disraeli.
Right Hon. Robert Lowe.

1868.

George Smith, Serampore.
Rev. Henry Baker Tristram, F.R.S., Master of Greatham Hospital.
Rev. William Veitch, Edinburgh.

1869.

Matthew Arnold, H.M.I.S.
Alexander Bain, Professor of Logic, University of Aberdeen.

Colonel J. A. Ballard, C.B.
Andrew Rutherford Clark, Advocate.
Edward S. Gordon, Q.C.
George Moir, Advocate.
Lyon Playfair, C.B., M.P.
T. Collyns Simon.
William Swan, Professor of Natural Philosophy, University of St Andrews.
Sir William Thomson, Professor of Natural Philosophy, University of Glasgow.
Sir Charles Wheatstone, F.R.S.
Sir Roderick Impey Murchison, Bart., Director of the Geological Survey of Great Britain.

1870.

Sir Colin Blackburn, one of the Judges of the Queen's Bench.
Thomas Harvey, Rector of the Edinburgh Academy.
David Milne Home, of Wedderburn, Advocate.
Rev. John Gibson Macvicar, D.D., Minister of Moffat.
James Clerk Maxwell, F.R.S.
Charles Murchison, M.D., F.R.S.
William Wright, D.C.L., MS. Department, British Museum.
Henry Wentworth Acland, Professor of Medicine in the University of Oxford.
Max Müller, Professor of Philology in the University of Oxford.

1871.

Robert Carruthers, Inverness.
William Forsyth, Barrister-at-Law, Q.C.
Patrick Fraser, Sheriff of Renfrewshire.
Shadworth H. Hodgson, B.A. Oxon.
Right Hon. George Young, Q.C., M.P., Lord Advocate of Scotland.
Thomas Andrews, Vice-President of Queen's College, Belfast.
W. B. Carpenter, M.D., Registrar of the University of London.
Rev. James Challis, Plumian Professor of Astronomy and Experimental Physics, University of Cambridge.
Auguste Colding, Denmark.
John Peter Gassiot.
William Huggins.
Jules Janssen.
James Prescott Joule.
G. E. Paget, M.D., Cantab.
W. Spottiswoode, Treasurer of the Royal Society.
George Gabriel Stokes, Lucasian Professor of Mathematics in the University of Cambridge.
James Joseph Sylvester, late Professor of Mathematics at Woolwich.
Allen Thomson, M.D., Professor of Anatomy, University of Glasgow.
Pierre Joseph Van Beneden, Professor of Comparative Anatomy, University of Louvain.

1872.

Sir Robert Christison, Bart., M.D., D.C.L., Professor of Materia Medica, University.
Hugh Andrew Johnston Munro, Professor of Latin, University of Cambridge
Henry James Stephen Smith, Savilian Professor of Geometry, Oxford.
William Smith, Actuary, Vice-President of the Phil. Institution, Edinburgh.
John Veitch, Professor of Logic and Rhetoric, University of Glasgow
William Chambers of Glenormiston.
John Joseph Ignatius Döllinger, Rector of the University of Munich.

1873.

George James Allman, M.D., Emeritus Professor of Natural History.
John Aitken Carlyle, M.D.
John M. Lindsay, Director of Chancery.
E. L. Lushington, Professor of Greek in the University of Glasgow.

1874.

His Grace Walter-Francis Montagu-Douglas-Scott, Duke of Buccleuch and Queensberry,
Thomas Spencer Baynes, Professor of Logic, University of St Andrews.
John Brown, M.D.
W. Gillespie Dickson, Sheriff of Glasgow.
James A. H. Murray, F.E.I.S., London.
Reinhold Pauli, D.C.L.
John Gordon, one of H.M. Inspectors of Schools.

1875.

Theodor Aufrecht, late Professor of Sanskrit, University of Edinburgh.
E. B. Cowell, Professor of Sanskrit, University of Cambridge.
Theodore Martin.
A. W. Potts, Head Master of Fettes College.
William Watson, Solicitor-General.
Robert Stoddart Wyld.
James Warburton Begbie, M.D., Edinburgh.
John Hughes Bennett, M.D., Emeritus Professor of Institutes of Medicine, University of Edinburgh.
James Matthews Duncan, M.D., Edinburgh.
Sir William Ferguson, Bart., President of the Royal College of Surgeons of England.
Alfred Henry M'Clintock, M.D., Dublin.
William Pirrie, M.D., Professor of Surgery, University of Aberdeen.
John Burdon Sanderson, M.D., Professor of Physiology, University College, London.
Thomas Shapter, M.D., Exeter.

1876.

The Right Hon. the Earl of Derby.
William D. Geddes, Professor of Greek, University of Aberdeen.

John Hullah, H.M. Musical Examiner of Training Colleges.
W. Stanley Jevons, Professor of Political Economy, King's College, London.
John Thomson Mowbray, W.S.
Sir Joseph Noel Paton, Limner to Her Majesty for Scotland.
Rev. Colin Valentine, Fellow of the Royal College of Surgeons, Edinburgh, and Missionary at Jeypore.

1877.

Charles U. Aitchison, Principal Secretary of the Foreign Department to the Government of India.
G. Rolin Jaequemyns, Advocate at the Court of Appeal at Ghent.
George Gore, F.R.S., Master of Science, School of King Edward, Birmingham.
John Bennett Lawes of Rothamsted, F.R.S.
Reinhold Rost, Principal Librarian, India Office.
John Westlake, Barrister-at-Law, Q.C., London.
Alexander Balloch Grosart, Minister of the Presbyterian Church, Blackburn.

1878.

Right Hon. Richard Monckton Milnes, Lord Houghton.
Alexander Smith Kinnear, Advocate.
Francis Turner Palgrave.
John Skelton, Advocate.
Samuel Smiles.
James Risdon Bennett, M.D., (Edin.), F.R.S., President of the Royal College of Physicians, London.
Sir Joseph Fayrer, M.D. (Edin.), K.C.S.I., F.R.S.
John Richard Green, M.A. (Oxon.), Author of the "History of the English People," &c.
Joseph Lister, M.B. (Lond.), F.R.S., Professor of Clinical Surgery, King's College, London.
William Macdonald, M.A. (Edin.), Rector of the High School of Dunedin, Otago.

1879.

The Most Noble the Marquis of Hartington, M.P., Lord Rector of the University.
Sir Walter Elliot, K.C.S.I.
R. C. Jebb, M.A., Professor of Greek, University of Glasgow.
Rev. Isaac Taylor, M.A., Trinity College, Cambridge, Rector of Settrington, Yorkshire.
Andrew Wood, M.D., F.R.C.S., F.R.S., Edinburgh.
William Aldis Wright, M.A., Fellow of Trinity College, Cambridge.

1880.

John Hutton Balfour, M.A., M.D., F.R.S., Emeritus Professor of Botany, Edinburgh.

Rev. James Currie, M.A., Rector of Church of Scotland Training College.
Henry Morley, Professor of History, University College, London.
Alexander Nicolson, M.A., Sheriff-Substitute of Kirkcudbright.
Frederick Pollock, Barrister-at-Law.
George G. Ramsay, M.A., Professor of Humanity, Glasgow.
Rev. William Stubbs, M.A., Regius Professor of Modern History, Oxford.

1881.

Arthur J. Balfour, M.P.
James Burgess, M.R.A.S., F.R.G.S.
Samuel R. Gardiner, Professor of History, King's College, London.
William Guthrie, Advocate, one of the Sheriff-Substitutes of Lanarkshire.
Sir Daniel Macnee, President of the Royal Scottish Academy.
Bonamy Price, Professor of Political Economy, Oxford.
A. W. Williamson, Professor of Chemistry, University College, London.

1882.

Joseph Anderson, one of the Secretaries of the Society of Antiquaries, Edinburgh, and Curator of their Museum.
Rev. Thomas Fowler, President of Corpus Christi College, and Professor of Logic, University of Oxford.
Æneas J. G. Mackay, Emeritus Professor of History, University of Edinburgh.
Hon. Lord Maclaren, Senator of the College of Justice.
John Simon, C.B., F.R.S., late Medical Adviser to the Privy Council.
Robert Angus Smith, Ph.D., F.R.S.

Graduation in Medicine and Surgery.

Three Medical Degrees are conferred by the University of Edinburgh, viz., Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.) The Degree of Master in Surgery is not conferred on any person who does not at the same time obtain the Degree of Bachelor of Medicine.

These Degrees are a passport to the General Council of the University, and to the Medical Register. They qualify for Practice throughout Her Majesty's dominions, and for admission to the Military, Naval, and other Public Medical Service in the United Kingdom.

All Candidates for these Degrees must give evidence of having obtained a satisfactory General Education.

Statutes of the University relative to the Preliminary Examination in General Education.

I. The preliminary branches of extra-professional education are English, Latin, Arithmetic, the Elements of Mathematics, and the Elements of Mechanics; and the proficiency of Students in these branches is ascertained by examination, prior to the commencement of their medical study (p. 140).

II. No candidate is admitted to a professional examination who has not passed a satisfactory examination on at least two of the following subjects (in addition to the subjects mentioned above):—Greek, French, German, Higher Mathematics, Natural Philosophy, Logic, Moral Philosophy; and the examination on these latter subjects also takes place before the candidate has entered on his Medical Curriculum (p. 142).

III. A Degree in Arts (not being an Honorary Degree) in any one of the Universities of England, Scotland, or Ireland, or in any Colonial or Foreign University, specially recognised for this purpose by the University Court, exempts from all preliminary examination; and an Examination in Arts by any corporate body, whose examination has been recognised as qualifying for entrance on medical study by resolution of the General Medical

Council of the United Kingdom, provided the said examination by the said corporate body shall be also approved by the University Court, shall exempt, *pro tanto*, from preliminary examination in Arts, on the subjects comprised in the said examination of the said corporate body. (See p. 143.)

Statutes of the University relative to Professional Education and Examination.

IV. No one is admitted to the Degrees of Bachelor of Medicine and Master in Surgery who has not been engaged in Medical and Surgical study for four years—the Medical Session of each year or *Annus Medicus*, being constituted by at least two courses of not less than one hundred lectures each, or by one such course, and two courses of not less than fifty lectures each; with the exception of the Clinical Courses, in which lectures are to be given at least twice a week during the prescribed periods.

V. Every candidate for the Degrees of M.B. and C.M. must give sufficient evidence by certificates—*

1. That he has studied each of the following departments of Medical Science, viz.,

Anatomy, ...	During Courses including not less than One Hundred Lectures.
Chemistry, ...	
Materia Medica, ...	
Institutes of Medicine or Physiology,	
Practice of Medicine, . . .	
Surgery, ...	
Midwifery, and the Diseases peculiar to Women and Children; two Courses of Midwifery, of Three Months each, being reckoned equivalent to a Six Months' Course, provided different departments of Obstetric Medicine be taught in each of the Courses. . .	
General Pathology, or in Schools where there is no such Course, a Three Months' Course of Lectures on Morbid Anatomy, together with a Supplemental Course of Practice of Medicine or Clinical Medicine.	

* No Course of Lectures will be allowed to qualify unless the Lecturer certifies that it has embraced at least 100 lectures, or 50 lectures in conformity with the requirements of this section. Three Months' courses on Materia Medica, Pathology, and Midwifery do not qualify.

PRACTICAL ANATOMY, .	A Course of the same duration as those of not less than One Hundred Lectures above described.*
PRACTICAL CHEMISTRY, .	Three Months.
PRACTICAL MIDWIFERY,	Three Months at a Midwifery Hospital, or a Certificate of Attendance on six Cases from a registered Medical Practitioner.
CLINICAL MEDICINE, . CLINICAL SURGERY,† .	Courses of the same duration, as those of not less than One Hundred Lectures above prescribed, or Two Courses of Three Months' Lectures being given at least twice a week.
MEDICAL JURISPRUDENCE, . . BOTANY, ... NATURAL HISTORY, including ZOOLOGY,	During Courses including not less than Fifty Lectures.

2. That he has attended for at least two years the Medical and Surgical Practice of a General Hospital which accommodates not fewer than eighty patients, and possesses a distinct staff of Physicians and Surgeons.

3. That he has attended during a Course of not less than fifty hours instruction the Class of Practical Materia Medica in the University of Edinburgh, or a similar class conducted in a University or recognised school of Medicine, or a similar Class conducted by a Teacher recognised by the University Court; or, that he has been engaged, for at least three months, by apprenticeship or otherwise, in *compounding* and *dispensing* drugs at the Laboratory of an Hospital, Dispensary, Member of a Surgical College or Faculty, Licentiate of the London or Dublin Society of Apothecaries, or a Member of the Pharmaceutical Society of Great Britain.

4. That he has attended, for at least six months, by apprenticeship or otherwise, the *out-practice* of an Hospital, or the practice of a Dispensary, Physician, Surgeon, or Member of the London or Dublin Society of Apothecaries.‡

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* Certificates of attendance on Practical Anatomy must express not only the number of months engaged in dissection, but the names of the parts dissected, and the degree of care with which the dissections have been made. Students are recommended not to appear for an examination in Anatomy with a view to a Degree, until they have dissected the human body at least once.

† The Faculty of Medicine recommend that Medical Students should not attend Clinical Surgery during their first six months' attendance on Clinical Medicine.

‡ Practical Pharmacy, Dispensary, Hospital Practice, and Vaccination are not reckoned as *Classes*.—See Regulation as to Vaccination at p 138.

VI. The studies of candidates for the Degrees of Bachelor of Medicine and Master in Surgery are subject to the following Regulations:—

1. One of the four years of Medical and Surgical study, required by Section IV., must be in the University of Edinburgh.

2. Another of such four years of Medical and Surgical study must be either in the University of Edinburgh, or in some other University entitled to give the Degree of Doctor of Medicine.

3. Attendance during at least six winter months on the Medical or Surgical Practice of a General Hospital, which accommodates at least eighty patients, and, during the same period, on a course of Practical Anatomy, may be reckoned as one of such four years, and to that extent shall be held equivalent to one year's attendance on Courses of Lectures as above prescribed.

4. One year's attendance on the Lectures of Teachers of Medicine in the Hospital Schools of London, or in the School of the College of Surgeons in Dublin, or of such Teachers of Medicine in Edinburgh, or elsewhere, as shall from time to time be recognised by the University Court,* may be reckoned as one of such four years, and to that extent shall be held as attendance on Courses of Lectures as above prescribed.

5. Candidates may, to the extent of Four of the Departments of Medical Study required by Section V., Sub-section 1, attend in such year or years of their Medical and Surgical studies, as may be most convenient to them, the Lectures of the Teachers of Medicine specified in the foregoing Sub-section 4.

[Students of Medicine in the London Schools and in the School of the College of Surgeons in Dublin can obtain there two *Anni Medici* out of the four required for the Edinburgh Degrees in Medicine. Courses of Lectures in these Schools are regarded as equivalent to Lectures on the corresponding subjects in this University, except Materia Medica and Midwifery, which being only three months' Courses in them are not equivalent. One *Annus Medicus* may be constituted by attendance on Practical Anatomy and Hospital Practice during the Winter Session. Another *Annus Medicus* by attending either, (*a*), full Winter Courses on any two of the following subjects: Anatomy, Physiology, Chemistry, Pathology, Surgery, Medicine, Clinical Surgery, Clinical Medicine: or (*b*), on one such Course and a three months' Course on any two of the following subjects: Botany, Practical Chemistry, Natural History, Medical Jurisprudence. If the Student selects the arrangement prescribed in (*a*), certificates of attend-

* *See* p. 148.

ance on either a third Winter Course, or a third three months' Course, will also be accepted by this University. The other subjects, and the additional Courses, not given in London or Dublin, required for the degrees of the University, will have to be attended at this University.

In Provincial Schools, where there are no Lecturers recognised by the University Court, a Candidate can have only One *Annus Medicus*, and this is constituted by attendance on a Qualified Hospital along with a course of Practical Anatomy; but in a Provincial School where there are two or more Lecturers recognised by this University, a Second *Annus Medicus* may be made by attendance on at least two six months, or one six months and two three months, recognised Courses.

6. All candidates not Students of the University, availing themselves of the permission to attend the Lectures of Extra-Academical Teachers in Edinburgh, must, at the commencement of each year of such attendance, enrol their names in a book to be kept by the University for that purpose, paying a Fee of the same amount as the Matriculation Fee paid by Students of the University, and having in respect of such payment, a right to the use of the Library of the University.

7. The Fee for attendance on the Lectures of an Extra-Academical Teacher in Edinburgh, with a view to Graduation, must be of the same amount as that exigible by Medical Professors in the University.

[*The Fee must be paid at the commencement of the Course.*]

8. No Teacher is recognised who is at the same time a Teacher of more than one of the prescribed branches of study, except in those cases where Professors in the University are at liberty to teach two branches.

9. It is not necessary for any Teacher, attendance on whose Lectures was recognised before 1861 for the purposes of Graduation in the University, to obtain a new recognition from the University Court; and attendance on the Lectures of every such Teacher will continue to be recognised as heretofore.

10. It is in the power of the University Court, if they shall see cause, at any time to withdraw or suspend the recognition of any Teacher or Teachers.

VII. Every Candidate must deliver, before the 31st day of March of the year in which he proposes to Graduate, to the Dean of the Faculty of Medicine—

1. A declaration, in his own handwriting, that he has completed his twenty-first year, [or that he will have done so on or before the day of Graduation,] and that he will not be, on the day of Graduation, under articles of apprenticeship to any Surgeon or other master. (This de-

claration, along with a statement of studies, is appended to the Schedule for the Final Examination, and must be signed before the Schedule is given in.)

2. A statement of his studies, as well in Literature and Philosophy as in Medicine, accompanied with proper certificates.

VIII. Each candidate is examined, both in writing and *viva voce—First*, on Chemistry, Botany, and Natural History; *Secondly*, on Anatomy, Institutes of Medicine, Materia Medica, [including Practical Pharmacy], and Pathology; *Thirdly*, on Surgery, Practice of Medicine, Midwifery, and Medical Jurisprudence; *Fourthly*, Clinically on Medicine and on Surgery in an Hospital. The examinations on Anatomy, Chemistry, Institutes of Medicine, Botany, Natural History [Materia Medica and Pathology] are conducted, as far as possible, by demonstrations of objects placed before the candidates.

IX. Students who profess themselves ready to submit to an examination on the first division of these subjects, at the end of their second year, may be admitted to examination at that time. Provided always that Students who commence their medical studies in the Summer Session, and who profess themselves ready to submit to an examination on the first division of these subjects at the beginning of their second Winter Session may be admitted to examination at that time on condition that they produce certificates of attendance on at least two classes during each of two Summer Sessions and one Winter Session; and on the further condition that they shall not be admitted to a degree in Medicine unless their course of study, subsequent to the completion of the Summer Session in which they commence their medical studies, shall not be less than the minimum course of four years prescribed in Section IV. hereof.

X. Students who have passed their examination on the first division of these subjects, may be admitted to examination on the second division at the end of their third year.

XI. The examination on the third and fourth divisions cannot take place until the candidate has completed his fourth *Annus Medicus*.

XII. Candidates may, if they choose, be admitted to examination on the first two of these divisions at the end of their third year, or to the four examinations at the end of their fourth year.

> [Thus Candidates for the First Professional Examination must have given attendance on qualifying classes for at least two *Anni Medici*, or for two Summer Sessions and one Winter Session ; for the Second Professional Examination three complete *Anni Medici*; and for the Final Professional Examination four complete *Anni Medici*.]

XIII. If any candidate at these examinations be found unqualified, he cannot be again admitted to examination unless he has studied, during another year, two of the prescribed subjects, either in the University, or in some other School of Medicine.

XIV. After the candidate has satisfied the Medical Examiners, the Dean will lay the proceedings before the Senatus Academicus, by whose authority the candidate will be admitted on the first day of August, or, if that day be Sunday, then on the following day, to the Degrees of Bachelor of Medicine and of Master in Surgery.

XV. The Senatus Academicus, on the day here appointed, will assemble at ten o'clock A.M., for the purpose of conferring Degrees ; and no candidate, unless a sufficient reason be assigned, shall absent himself, on pain of being refused his Degree for that year.

XVI. Candidates for Graduation are required to produce evidence of their having conformed to the Regulations which were in force at the time they commenced their Medical Studies.

XVII. The Degree of DOCTOR OF MEDICINE may be conferred on any candidate who has obtained the Degrees of Bachelor of Medicine and Master in Surgery, and is of the age of twenty-four years, and produced a certificate of having been engaged, subsequently to his having received the Degrees of Bachelor of Medicine and Master in Surgery, for at least two years in attendance on an Hospital, or in the Military or Naval Medical Services, or in Medical and Surgical Practice:

Provided always that the Degree of Doctor of Medicine shall

not be conferred on any person, unless he be a Graduate in Arts of one of the Universities of England, Scotland, or Ireland, or of such other Universities as are above specified [Section III.], or unless he shall, before or at the time of his obtaining the Degrees of Bachelor of Medicine and Master in Surgery, or thereafter, have passed a satisfactory examination on *three* of the subjects mentioned in Section II. of the Statutes relative to Preliminary Examination. Two of these must be Greek, and either Logic or Moral Philosophy, and the third is to be one of the following subjects at the option of the Candidate—namely French, German, Higher Mathematics, and Natural Philosophy.

And provided also that the candidate for the Degree of Doctor of Medicine shall submit to the Medical Faculty a Thesis, certified by him to have been composed by himself, and which shall be approved by the Faculty, on any branch of knowledge comprised in the professional examinations for the Degrees of Bachelor of Medicine and Master in Surgery, which he may have made a subject of study after having received those Degrees. The Candidate must lodge his Thesis with the Dean on or before 30th April of the year in which he proposes to graduate. No Thesis will be approved by the Medical Faculty which does not contain either the results of original observations in practical Medicine, Surgery, Midwifery, or in some of the sciences embraced in the curriculum for the Bachelor's and Master's Degrees; or else a full digest and critical exposition of the opinions and researches of others on the subject selected by the Candidate, accompanied by precise references to the publications quoted, so that due verification may be facilitated.*

Candidates, settled for a period of years in foreign parts, who have complied with all the regulations for the Degree of M.D., (under the new Statutes), but who cannot appear personally to receive the Degree, may, on satisfying the Senatus to that effect, by production of sufficient official testimonials, have the Degree conferred on them in absence.

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* Candidates are required to write their Theses on faint lined paper, 11 in. by 8½ in., with margins 1½ in. at each side. The Thesis is to be written on only one side of each leaf.

XVIII. The Medical Examiners for all candidates for Graduation in Medicine are the Professors in the Faculty of Medicine, along with the thirteen non-professorial Examiners appointed annually by the University Court.

XIX. The provisions of these Statutes came into operation on the 4th of February 1861.

XX. Persons who began their medical studies before the 4th of February 1861, are entitled to graduate under the system in force before or after that date, according as they may comply with the regulations in force in the University before or after that date.

Regulation as to Vaccination.

In conformity with the desire expressed by the Local Government Board, it has been resolved that a Candidate for a Degree in Medicine must produce, at his final examination, a certificate from a recognised Vaccine Department in an Hospital, Dispensary, or other public Institution, to the effect that he has himself performed the operation successfully under the teacher's inspection; that he is familiar with the different stages of the vaccine vesicle, and with the method of preserving lymph, and is thoroughly informed in every necessary part of the subject.

Recognised Vaccine Departments in Edinburgh are—in the Royal Public Dispensary, 21 West Richmond Street—*Vaccinator*, Dr Husband; in the New Town Dispensary, 17 Thistle Street—*Vaccinator*, Dr Affleck.

REGULATIONS AS TO THE FIRST PROFESSIONAL EXAMINATION.

The Medical Faculty have resolved that the written and oral examinations on Chemistry, Botany, and Natural History, in October 1882 and April 1883 shall be restricted in the following manner :—

1. *Chemistry.*—Classification of Elements. General Laws of Chemical Combination and Action, as illustrated in the simpler compounds of the more commonly occurring elements.

Symbolic Notation.

Preparation and Properties of the Non-Metallic Elements and their chief Compounds.

Classification and General Properties of Acids, Bases, and Salts—Electrolysis of Salts.

Oxygen, Ozone, Oxidation and Reduction.

Hydrogen, Water, Peroxide of Hydrogen. Chlorine, Hydrochloric Acid, Hypochlorites, Chlorates, Perchlorates. Bromine, Hydrobromic Acid, Bromates. Iodine, Hydriodic Acid, Iodates, Periodates. Fluorine, Hydrofluoric Acid. Sulphur, Sulphuretted Hydrogen, Oxides of Sulphur, Sulphites, Sulphates, Thiosulphates, Chlorides of Sulphur, Chloride of Sulphuryl. Nitrogen, The Atmosphere, Oxides of Nitrogen, Nitrates, Nitrites, Ammonia, Ammonia Salts, Phosphorus, Oxides of Phosphorus, Chlorides and Oxychloride of Phosphorus, Phosphates, Phosphites, Hypophosphites. Boron, Boracic Acid, Borates, Fluoride of Boron. Silicon, Silica, Silicates, Chloride of Silicon, Fluoride of Silicon, Hydrofluosilicic Acid.

Carbon, Oxides of Carbon, Carbonates, Phosgene. Classification of Carbon Compounds. Marsh Gas and its Homologues. Methylic and Ethylic Alcohols and Ethers. Methylamine, Dimethylamine, Trimethylamine, Tetramethylammonium. Formic and Acetic Acids. Aldehyde, Acetone. Olefiant Gas. Oxalic Acid, Lactic Acid, Tartaric Acid, Citric Acid. Fats and Oils, Saponification, Glycerine. Cellulose, Sugars, Starch. Products of Distillation of Wood and of Coal. Coal-Gas, Coal-Tar, Benzol, Phenol, Benzoic Acid, Oil of Bitter Almonds. Hydrocyanic Acid, Cyanides, Cyanates, Sulphocyanates, Urea.

The following metals, their Oxides, Sulphides, and more important Salts. Potassium, Sodium, Magnesium, Calcium, Strontium, Barium, Aluminium, Zinc, Cadmium, Manganese, Chromium, Iron, Nickel, Cobalt, Bismuth, Lead, Copper, Mercury, Silver, Tin, Gold, Platinum, Antimony, Arsenic.

Simple Qualitative Analysis. [*The Examination in Analysis is conducted practically.*]

2. *Botany.*—Candidates to be examined on the following subjects :—

A. Structural Botany :—

(*a.*) *Histology*—Structural elements, their general character, chemical and anatomical. General structure of Roots, Stems and Leaves.

(*b.*) *Organography*—General characters and modes of arrangement of the nutritive and reproductive organs, Root, Stem, Leaf, Floral envelopes, Stamen, Pistil, Fruit and Seed. Vernation, Phyllotaxis, Inflorescence, arrangement and insertion of Floral parts, Placentation.

B. Physiological Botany :—

(*a.*) *Nutrition.* — Absorption, Elaboration of organic out of inorganic material, Digestion, Metastasis, Respiration, Movement of the Sap, Growth.

(*b.*) *Reproduction*—Fertilisation and Embryogeny in Phanerogamia, and the Higher Cryptogamia. Germination. Asexual reproduction or Gemmation.

C. Systematic Botany :—

The Candidate may be asked to define given Sub-kingdoms, Divisions, Classes, Series or Sub-classes, or to refer given Plants to such

Groups. He may also be examined on any of the following Natural Orders :—

Ranunculaceæ.	Dipsacaceæ.	Polygonaceæ.
Papaveraceæ.	Compositæ.	Coniferæ.
Cruciferæ.	Valerianaceæ.	Liliaceæ.
Violaceæ.	Campanulaceæ (including Lobeliaceæ).	Amaryllidaceæ.
Caryophyllaceæ.	Primulaceæ.	Iridaceæ.
Malvaceæ.	Solanaceæ (including Atropaceæ).	Orchidaceæ.
Leguminosæ.	Scrophulariaceæ.	Gramineæ.
Rosaceæ.	Labiatæ.	Filices.
Onagraceæ.		Musci.
Umbelliferæ.		

3. *General characters of*—Protoplasta, Foraminifera, Infusoria, Cœlenterata, Turbellaria, Cestoidea, Nematoidea, Gephyrea, Holothuroidea, Ophiuroidea, Cirripedia, Copepoda, Araneina, Myriapoda, Diptera, Hymenoptera, Coleoptera, Lamellibranchiata, Prosobranchiata, Cephalopoda, Polyzoa, Cyclostomata, Ganoidei, Dipnoi, Urodela, Lacertilia, Ophidia, Saururæ, Ratitæ, Carinatæ, Monotremata, Marsupialia, Edentata, Artiodactyla, Œluroidea, Pinnipedia, Rodentia, Insectivora, Cheiroptera, Simiadæ.

General anatomy of—Aurelia, Hydra, Actinia, Distoma, Hirudo, Lumbricus, Aphrodite, Balanoglossus, Echinus, Asterias, Peripatus, Homarus, Daphnia, Lunulus, Scorpio, Blatta, Chiton, Helix or Arion, Ascidia, Scyllium, Gadus, Rana, Testudo, Crocodilus, Columba, Equus, Canis, Ursus, Balæna, Delphinus, Lepus, Lemur, Simia.

Principal facts in the development of—Aurelia, Lumbricus, Asterias, Homarus,, Hydrophilus, Appendicularia, Scyllium, Rana.

ARRANGEMENTS FOR THE PRELIMINARY EXAMINATION IN GENERAL EDUCATION.

The Preliminary Examinations in General Education are held in the Upper Library Hall, and Students Matriculated for the academic year (November to November) are admitted on presenting their Matriculation Tickets at the door. Students Matriculated for the Summer only and Non-Matriculated Students pay a Fee of Ten Shillings each, and are admitted on showing their Receipts. Those who pay the Fee in March will be admitted to the Examination in October without farther payment. Payment in October does not exempt from payment in March.

Candidates are required to enter their names *in full*, and at the same time to mention the subject or subjects in which they offer themselves for Examination. They are also required to state whether they have appeared for any Preliminary or Professional Examinations at this University.

Any Candidate who cannot appear personally at the time fixed to enter his name and pay the fee, can obtain, on application in writing to the *Clerk* of the University, the schedule required for the purpose. When he has filled up the schedule he should transmit it with an order for the Fee to the *Secretary of the Senatus.*

I. In conformity with Section I. of the Statutes (see p. 7), examinations on the Preliminary Branches of Extra-Professional Education will take place on Tuesday, Wednesday, Thursday, and Friday the 3d, 4th, 5th, and 6th, October 1882; and on Tuesday, Wednesday, Thursday, and Friday the 13th, 14th, 15th, and 16th March 1883.

Examination on Tuesdays.—Arithmetic, 9 to 11 A.M.; Mathematics (Euclid, Algebra), 11.30 A.M. to 1.30 P.M.; Higher Mathematics, 2 to 4 P.M.

Examination on Wednesdays.—English, 9 to 11 A.M.; Natural Philosophy, 11.30 A.M to 1.30 P.M.; Mechanics, 2 to 4 P.M.

Examination on Thursdays.—Latin, 9 to 11 A.M.; Logic, 11.30 A.M. to 1.30 P.M.; Moral Philosophy, 2 to 4 P.M.

Examination on Fridays.—Greek, 9 to 11 A.M.; French 11.30 A.M. to 1.30 P.M.; German, 2 to 4 P.M.

SUBJECTS OF EXAMINATION FROM OCTOBER 1882 to MARCH 1884, BOTH INCLUSIVE.

1. *English.*—The Examination will include:—(1.) Writing a passage of English from dictation; (2.) English Composition with the correction of sentences of bad English; (3.) Questions in English Grammar, with analysis of sentences and the derivation and definition of some common English words; (4.) General Questions in History and Geography.
2. *Latin.*—For October 1882 and March 1883, Livy, Book V. For October 1883 and March 1884, Livy, Book XXI. An easy passage from a Latin prose author, and a single passage of English (translated from a Latin author) to be re-translated into Latin—the more difficult Latin words being given.
3. *Arithmetic.*—The Common Rules, including Vulgar and Decimal Fractions.
4. *Elements of Mathematics.*—Geometry, Euclid, Books I., II., and III., or Wilson's *Elementary Geometry,* Books I., II., III. The Elementary Rules of Algebra, including Simple Equations. A knowledge of Geometry alone or of Algebra alone will not be sufficient.

5. *Elements of Dynamics* (*Mechanics*).—Elementary Kinematics, Statics, Kinetics, and Hydrostatics. Text Book: Blaikie's *Elements of Dynamics.*

II. In conformity with Section II. of the said Statutes, (see p. 7), which enacts that no candidate shall be admitted to a professional examination who has not passed a satisfactory examination on at least *two* optional subjects (in addition to the subjects mentioned above) examinations will take place on the following subjects :—

1. *Greek.*—For October 1882 and March 1883, Xenoph., *Anabasis*, Bk. IV. For October 1883 and March 1884, Plato, *Apologia Socratis.*
2. *French.*—For October 1882 and March 1883, Voltaire, *Siècle de Louis XIV.*, chaps. xviii.-xxiii. For October 1883 and March 1884, Souvestre, *Un Philosophe sous les toits*, I.-IX.
3. *German.*—For October 1882 and March 1883, Lessing, *Minna von Barnhelm.* For October 1883 and March 1884, Chamisso, *Peter Schlemihl's wundersame Geschichte.*
4. *Higher Mathematics.*—Geometry, Euclid, Books I.–IV., Book VI., and the Propositions of Book XI., usually given in the modern editions, or Wilson's *Elementary Geometry*, Books I., II., III., V., and Wilson's *Solid Geometry and Conic Sections*, Book IV., Section I.—Algebra, Elementary Trigonometry, and Conic Sections. Text Book for Conic Sections, Wilson's *Solid Geometry and Conic Sections*, Book V.
5. *Natural Philosophy.* — Text-Book recommended — Balfour Stewart's *Elementary Physics.*
6. *Logic.*—Either Jevons's *Elementary Lessons in Logic, or* Professor Fraser's *Selections from Berkeley*, 2nd Ed. pp. 143-249.
7. *Moral Philosophy.* — From October 1882 until March 1884 (inclusive), Butler's *Ethical Theory*, *Sermons* 1, 2, 3, and Professor Calderwood's *Handbook*, pp. 1-43, 123-152, 165-202.

In answering the questions in Arithmetic, Mathematics, and Dynamics (*Mechanics*), *the steps of the reasoning, as well as the final result, must be exhibited.*

As regards Latin, Greek, French, and German, mere translation is not sufficient. There must be translation of an English passage into each of the languages taken up by the Candidates.

A Degree in Arts in any one of the Universities of the United Kingdom, or in one of the Colonial Universities, or Universities of British India, exempts from the Preliminary Examination.

The Preliminary Examinations in General Education of the following Bodies are recognised *pro tanto;* that is to say, they exempt from examination on the subjects comprised in them, in so far as the examinations are of the same extent as those required by this University.

Any subjects required by the Statutes, and not included in these examinations, or not carried out to the requisite extent, must be passed at the University.

Mathematics must in all cases extend to Geometry equivalent to three Books of Euclid, and must include Algebra.

As regards Optional Subjects, each of them must be certified; and in so far as they are of the nature and extent required by the University, they will be allowed to qualify.

No Examination of any other Board will be received on any subjects in which Candidates have been remitted at this University.

In all cases candidates must produce Certificates of having passed such Examinations, with an official notice of the subjects *in which they have passed, and of the* extent *of the Examination on each subject.*

UNIVERSITIES WHOSE DEGREES IN ARTS EXEMPT FROM THE PRELIMINARY EXAMINATION, AND UNIVERSITIES AND OTHER BODIES WHOSE EXAMINATIONS IN GENERAL EDUCATION ARE RECOGNISED PRO TANTO.

I.—UNIVERSITIES OF THE UNITED KINGDOM.

OXFORD.—Examination for a Degree in Arts; Responsions; Moderations; Local Examinations (Senior), Certificate to include Latin, and Mathematics,—Schools' Examination.

CAMBRIDGE.—Examination for a Degree in Arts; Previous Examination; Local Examinations (Senior), Certificate to include Latin, and Mathematics,—Schools' Examination.

DURHAM.—Examination for a Degree in Arts; Registration Examination for Medical Students; Local Examinations (Senior), Certificate to include Latin and Mathematics.

LONDON.—Examination for a Degree in Arts or Science; Matriculation Examination.

GLASGOW, ABERDEEN, AND ST ANDREWS.—Examination for a Degree in Arts; Preliminary Examination for Graduation in Medicine and Surgery.

EDINBURGH and GLASGOW.—Examination for a Degree in Arts; Examination of Candidates for Honour Certificates under the Local Examinations of the University.

DUBLIN.—Examination for a Degree in Arts; Public Entrance Examination.

QUEEN'S (IRELAND).—Examination for a Degree in Arts; Entrance Examination; Examination for the Diploma of Licentiate in Arts; Previous Examination for B.A. Degree.

II.—OTHER BODIES NAMED IN SCHEDULE (A) TO THE MEDICAL ACT.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Examination conducted under the Superintendence of the College by the Board of Examiners of the Royal College of Preceptors.

THE SOCIETY OF APOTHECARIES OF LONDON.—Examination in Arts.

Royal College of Physicians (Edinburgh), and Royal College of Surgeons (Edinburgh).—Preliminary Examination in General Education, conducted by a Board appointed by these Colleges combined.

Faculty of Physicians and Surgeons of Glasgow.—Preliminary Examination in General Education.

Royal College of Surgeons in Ireland.—Preliminary Examination, Certificate to include Mathematics.

Apothecaries' Hall of Ireland.—Preliminary Examination in General Education.

The Examinations for Commissions and Appointments in the Naval, Military, and Civil Services in the United Kingdom.—Certificate to include all the Subjects required by the General Medical Council.

Royal College of Preceptors.—Examination for a First-class Certificate.

III.—Indian, Colonial, and Foreign Universities and Colleges.

University of (1) Calcutta, (2) Madras, and (3) Bombay.—Entrance Examination, Certificate to include Latin.

M'Gill College, Montreal —Universities of (1) Toronto, (2) Trinity College, Toronto, (3) Queen's College, Kingston, (4) Victoria College, Upper Canada, (5) Fredericton, New Brunswick, (6) Manitoba.—Matriculation Examination.

University of Halifax.—Matriculation Examination.

University of King's College, Nova Scotia.—Matriculation Examination; Responsions.

University of Melbourne.—Matriculation Examination, Certificate to include all the Subjects required by the General Medical Council.

University of Sydney.—Matriculation Examination.

University of the Cape of Good Hope. — Matriculation Examination.

University of Adelaide.—Matriculation Examination,

South Australia, South Australian Institute, Adelaide.—Preliminary General Examination, First-Class Certificate.

Codrington College (Barbados).—(1) English Certificate for Students of two years' standing, specifying the Subjects of Examination; (2) Latin Certificate, or "Testamur."

Tasmanian Council of Education.—Examination for the Degree of Associate of Arts, Certificate to include Latin and Mathematics.

University of New Zealand.—Matriculation Examination.

Otago University.—Preliminary Examination.

Christ's College, Canterbury, New Zealand.—Voluntary Examinations, Certificate to include all the Subjects required by the General Medical Council.

Germany. — Gymnasial Abiturienten Examen, and corresponding Entrance Examination to other Continental Universities.

REGISTRATION OF MEDICAL STUDENTS.

According to the Regulations of the General Medical Council of the United Kingdom, every Student must, at the commencement of his medical studies, be registered on the Register of Students kept by the General Medical Council. No Student can be registered who has not passed in English, Latin, Arithmetic, Euclid, and Algebra, along with one optional subject, as French, or German, or Greek, or Mechanics, or Natural Philosophy, or Logic. The commencement of medical study is reckoned from the date of registration, and Students are recommended to register with the Branch Registrar for Scotland as soon as they have passed in the required subjects. Forms for Registration may be had on application to the Clerk of the University.

A Student who has not been able to register, and who commences his Medical Studies in Summer, may matriculate, and attend the classes of Botany and Natural History. He must, however, pass a sufficient preliminary examination in October, so as to entitle him to be registered at the commencement of the Winter Session.

The Faculty particularly recommend that all Medical Students should commence their curriculum in Summer.

MATRICULATION OF STUDENTS.

All Students must matriculate before they can be enrolled in any of the Classes in the University, or in any of the Extra-Academical Classes in Edinburgh which they may wish to qualify for Graduation. Matriculation consists in paying during each year of study an entrance fee of £1 to the University, and in inscribing the name in the Students' Album. The matriculation fee for a Summer Session only is 10s.

Every Candidate for a Degree in Medicine or Surgery must matriculate at the University for the year in which he appears for Professional Examination or Graduation. He is also required before graduation to pay the Registration Fee of £1, now made compulsory by Act of Parliament.

CERTIFICATES OF ATTENDANCE AT THE MEDICAL CLASSES.

The Senatus Academicus have resolved that the Certificates of Attendance to be granted to students at the Medical Classes shall be regulated in the following manner :—

Each Professor shall ascertain the presence of his pupils at least twenty-six times in a course of six months' duration, and thirteen times in a course of three months' duration.

Those who have been absent twelve or more times in a six months' course, or six or more times in a three months' course, shall not be entitled to any Certificate.

The following is the form of Certificate which must be adopted in all cases :—

"I certify that Mr attended my Course of Lectures on during the Session ; that attendance was ascertained times, and that Mr was present on of these occasions."

Exceptions shall be admitted in the case of those who may be absent from sickness or other unavoidable causes, the particulars of which must be stated to the Professor in writing, accompanied with certificates. All excuses for non-attendance must be given in immediately upon the student returning to his class. But if any student shall have been absent for six weeks or upwards, in a Course of six months, or for three weeks in a Course of three months (whatever the cause of absence may be), his case must be transmitted to the Dean of Faculty for the decision of the Faculty.

Whenever the student's cause for absence shall be admitted by the Professor or by the Faculty, the Certificate shall bear that he "attended," and shall state the amount of the irregularity and the nature of the excuse.

Candidates for Medical Degrees, in lodging the statement of their Courses of Study with the Dean of Faculty, will observe, that for all Courses of Lectures in the University, the Faculty will receive Certificates only as evidence of their attendance.

The Senatus require that students shall take their tickets for each Course of Lectures not later than fifteen days after the commencement of the Course.

REGULATIONS AS TO CLASS EXAMINATIONS.

With a view to promote the Educational interests of the students during the time they are occupied with the respective subjects in the Classes, the Senatus recommend :—

1. That there should be at least two Special Class-Examinations in the Medical Classes during each Session, conducted by means of questions and written answers, without aid from books or notes.

[During the Winter Session the usual days for the Examination are the 2d or 3d Saturday of January, and the 2nd or 3rd Saturday of March.]

2. That in the event of a student gaining 75 per cent. or more of the available marks in any department, he shall obtain a Certificate in the First Class of Honours.

3. That in the event of a student gaining 50 per cent. or more, but less than 75 per cent., of the available marks in any department, he shall receive a Certificate in the Second Class of Honours.

University Bronze Medals are also given for Competitive Class Examinations.

HONOURS AT PROFESSIONAL EXAMINATIONS.

1st. Candidates at the First Professional Examination who shall obtain not less than 4B and 2SB+ marks, shall pass "with distinction."

2d. Candidates at the Second Professional Examination, who shall obtain not less than 5B and 3SB+ marks, shall pass "with distinction."

3d. Candidates at the Final Examination, who shall obtain not less than 7B and 3SB+ marks, shall pass "with distinction."

FIRST CLASS HONOURS shall be conferred at the time of graduation on those Candidates who, during their Professional Examinations, have obtained out of a possible total of 24B. marks, not less than 20B marks, 2SB+ to be regarded as equivalent to 1B. For SECOND CLASS HONOURS not less than 16B marks must be obtained, 2SB+ to be regarded as equivalent to 1B. The mark Vix affixed to any subject of examination debars a Candidate from taking honours.

DATES OF EXAMINATIONS.

The dates of the Examinations for 1882-83 have been fixed as follows; and candidates for each of them are required to assemble in the Upper Library Hall a quarter of an hour before the time fixed for examination :—

Preliminary Examination in General Education, — 3d, 4th, 5th and 6th Oct. 1882; 13th, 14th, 15th and 16th March 1883. — hours at page 18.

Names to be given in and Fees paid on or before 25th Sept. 1882, and on or before 5th March 1883.*

First Professional Examination, . . . — 12th and 13th Oct. 1882; 2d and 3d April 1883. — at 11 o'clock each day.

Names to be given in and Fees paid on or before 4th October 1882, and on or before 28th March 1883.*

Second Professional Examination, . . . — 14th and 15th July 1882; 6th and 7th April 1883. — at 11 o'clock each day.

Names to be given in and Fees paid on or before 7th July 1882, and on or before 30th March 1883.*

Final Professional Examination, . . . — Written Examination on 2d and 3d June 1882. — at 11 o'clock each day.

Clinical Examinations begin 3d May 1882.

Names to be given in and Fees paid on or before 24th April 1883.*

Graduation, . . 1st August 1882. at 10 A.M.

Candidates to assemble at 9 a.m.

Theses for M.D. to be given in on or before 30th April, and Fees for M.D. to be paid on or before 15th July.*

* Where names are not entered nor fees paid on or before the stated dates, a fine of ten shillings must be paid before the Candidate is admitted to examination.

LIST OF EXTRA-ACADEMICAL LECTURERS BEFORE 1861, OR WHO HAVE BEEN RECOGNISED BY THE UNIVERSITY COURT, SINCE 1861.

BIRMINGHAM.

		Date of Recognition.
William Thomas, M.B.,	Anatomy. (*Conjoint Course.*)	March 11, 1880.
Robert Jolly, M.D.,		
A. Bostock Hill,	Chemistry,	June 1, 1880.

DUBLIN.

H. A. Auchinleck, L.R.C.P.E.,	Med. Jurisprudence,	Feb. 28, 1881.
W. R. Macnab, M.D.,	Botany,	Feb. 28, 1881.
William Moore, M.D.,	Practice of Physic,	Nov. 12, 1863.
Chs. R. C. Tichborne, Ph.D.,	Practical Chemistry,	Feb. 28, 1881.

EDINBURGH.

J. O. Affleck, M.D.,	Practice of Physic,	Dec. 8, 1879.
Charles Bell, M.D.,	Midwifery,	Nov. 24, 1879.
Joseph Bell, M.D.,	Clinical Surgery,	June 4, 1878.
Byrom Bramwell, M.D.,	Practice of Physic,	Oct. 18, 1880.
J. Y. Buchanan, M.A.	Chemistry,	Dec. 21, 1878.
J. B. Buist, M.D.,	Pathology,	Nov. 24, 1879.
Charles W. Cathcart,	Anatomy,	Dec. 5, 1881.
John Chiene, M.D.	Surgery,	April 14, 1870.
Wm. Craig, M.D.,	Materia Medica,	July 14, 1879.
T. W. Drinkwater,	Chemistry,	July 14, 1879.
John Duncan, M.D.,	Surgery,	Oct. 7, 1872.
D. J. Hamilton,	Pathology,	Oct. 17, 1881.
James Hunter,	Institutes of Medicine,	July 16, 1880.
Alexander James,	Institutes of Medicine,	March 11, 1880.
H. D. Littlejohn, M.D.,	Med. Jurisprudence,	before 1861.
Alexander Keiller, M.D.,	Midwifery,	July 13, 1870.
J. Falconer King,	Chemistry,	Dec. 29, 1874.
H. Aubrey Husband, M.B.,	Med. Jurisprudence,	Nov. 24, 1879.
Stevenson Macadam, Ph.D.,	Chemistry,	before 1861.
A. N. MacAlpine,	Botany,	March 11, 1880.
Angus M'Donald, M.D.,	Midwifery,	Dec. 3, 1877.
Alexander G. Miller, M.D.,	Surgery,	Feb. 6, 1871.
F. W. Moinet, M.D.,	Materia Medica,	Dec. 3, 1877.
Johnson Symington, M.B.,	Anatomy,	July 14, 1879.
Bryan C. Waller, M.D.,	Pathology,	July 14, 1879.
P. H. Watson, M.D.,	Surgery,	before 1861.
Andrew Wilson, Ph.D.,	Natural History,	Oct. 11, 1875.
John Wyllie, M.D.,	Practice of Physic,	Dec. 21, 1878.

GLASGOW.

A. M. Buchanan, M.D.,	Anatomy,	Oct. 12, 1874.
Hector C. Cameron, M.B.,	Surgery,	Dec. 3, 1877.
Joseph Coats, M.D.,	Pathology,	June 14, 1875.
W. Dittmar,	Chemistry,	May 30, 1876.
James Dunlop, M.D.,	Surgery,	Oct. 12, 1875.
W. J. Fleming, M.B.,	Physiology,	Oct. 9, 1876.
Sampson Gemmel,	Practice of Physic,	July 18, 1881.
Alex. Lindsay, M.D.,	Med. Jurisprudence,	June, 4, 1878.
D. C. M'Vail, M.B.,	Physiology,	Dec. 21, 1878.
James Morton, M.D.,	Materia Medica,	July 5, 1867.
A. Wood Smith, M.D.,	Practice of Physic,	Feb. 22, 1878.

LEEDS.

J. A. Nunneley, M.B.,	Anatomy,	Jan. 31, 1881.
Edmund Robinson,	(*Conjoint Course.*)	
T. E. Thorpe, Ph.D.,	Chemistry,	Feb. 8, 1872.

LIVERPOOL.

W. Mitchell Banks, M.D.,	Anatomy,	Oct. 20, 1871.
J. Campbell Brown, D.Sc.,	Chemistry,	Oct. 20, 1871.
Richard Caton, M.D.,	Institutes of Med.,	Oct. 15, 1872.
W. A. Herdman, D.Sc.,	Natural History,	
Rushton Parker, M.B.,	Surgery,	July 14, 1879.
George Tate and	Chemistry,	April 11, 1881.
Granville H. Sharpe,	(*Conjoint Course.*)	
John Wallace, M.D.,	Midwifery,	Dec. 5, 1881.
W. A. Herdman, D.Sc.,	Natural History,	April 10, 1882.

LONDON.

Thomas Henry Huxley, LL.D.,	Natural History,	Oct. 13, 1869.

MANCHESTER.

Arthur Gamgee, M.D.,	Institutes of Med.,	Oct. 13, 1869.
A. Milnes Marshall, B.Sc.,	Natural History,	June 7, 1880.
H. E. Roscoe,	Chemistry,	May 30, 1876.
John Thorburn, M.D.	Midwifery,	Jan. 31, 1881.
Morrison Watson, M.D.,	Anatomy,	Nov. 9, 1874.
W. C. Williamson,	Botany,	April 12, 1880.

OTAGO.

James Gow Black, M.A., D.Sc.,	Chemistry,	Oct. 13, 1873.
John Halliday Scott, M.D.,	Anatomy,	Oct. 26, 1877.
Wm. Brown, M.B.,	Surgery,	July 14, 1879.

SHEFFIELD.

Thomas Carnelley, D.Sc.,	Chemistry,	Dec. 5, 1881.
Samuel Drew, M.D.,	Public Health,	Oct. 31, 1876.

SPONSIO ACADEMICA TO BE SIGNED BY GRADUATES IN MEDICINE.

Ego Doctoratus in Arte Medica titulo jam donandus, sancte coram Deo cordium scrutatore, spondeo, me in omni grati animi officio erga Academiam Edinburgenam ad extremum vitæ halitum perseveraturum.

Tum porro Artem Medicam caute, caste, probeque exercitaturum, et quoad potero, omnia ad ægrotorum corporum salutem conducentia cum fide procuraturum. Quæ, denique, inter medendum visa vel audita sileri conveniat, non sine gravi causa vulgaturum.

Ita præsens spondenti adsit Numen.

RIGHTS OF THE MEDICAL GRADUATES OF SCOTLAND ACCORDING TO THE MEDICAL ACT.

Before the passing of the Medical Act of 1858, the Degree of Doctor of Medicine granted by the Universities of Scotland (as the possessor underwent a complete education and examination in all departments of Physic and Surgery), qualified the Graduate to practise every branch of the Medical profession throughout Scotland. One principal purpose of the Medical Act was to extend local rights of practice over the whole of Her Majesty's dominions. But according to the hitherto accepted reading of a dubious clause in the Act, no one can practise both Medicine and Surgery without possessing two distinct Diplomas—one for Medicine and another for Surgery. The Universities were thus compelled, in justice to their Graduates, to give them the additional title of Master in Surgery, not as implying any additional study or examination, but as declaring more distinctly their qualifications, and to permit Registration as regularly qualified practitioners in the whole field of their professional education. The Secretary for War some time ago issued an Order that candidates for admission into the Medical service of the Army should obtain their qualifications in Physic and Surgery from two different sources; the effect of which would have been to prevent any one University from qualifying for this purpose. The Scottish Universities' Commissioners, recognising the serious evils of such a system, followed up a remonstrance which had been offered on the part of the University of Edinburgh, and obtained the rescinding of all restrictions in the source of qualification. Consequently, any single University in Scotland can now qualify candidates for the Military service as well as for any other public Medical service in the country.

THOMAS R. FRASER, M.D.,
Dean of the Faculty of Medicine, and Professor of Materia Medica.

GRADUATES IN MEDICINE.

List of Graduates in Medicine who have obtained Gold Medals for their Theses.

1848.
Aitken, William Scotland
Haldane, Daniel Rutherford, Scot.
Macrae, Charles M'Kenzie, Scot.
Struthers, James, Scotland

1849.
Balfour, James Brewster, Scotland
Sanders, William Rutherford, Scot.
Vanderbyl, Philip John, Cape of Good Hope

1850.
Christison, Alexander, Scotland
Marcet, William, Geneva
Nelson, Henry, India

1851.
Cobbold, Spencer, England
Millington, William, England
Murchison, Charles, Jamaica
Sanderson, John Scott, England
Martyn, Samuel, England
Taggart, John, Ireland

1852.
Bryce, William, Ireland
Dalzell, Allen, Scotland
Priestley, Wm. Overend, England
Turle, John, England

1854.
Johnston, Joseph, Scotland
Liddon, Edward, England
Willis, Matthew, England

1855.
Blackie, George Stodart, Scotland
Bryden, James Lumsdaine, Scot.
Hodgson, Decimus Filius de, Eng.

1856.
Carter, Thomas Albert, England
Cleland, John, Scotland

1857.
Sutherland, George Sackville, India
Turle, James, England
Young, Peter, Scotland

1858.
Maingay, Alex. Carroll, England
Thomson, Murray, Scotland
Wilson, Henry Season, Brazil

1859.
Brown, John, Scotland
Rorie, James, Scotland

1860.
Annandale, Thomas, England
Dickson, Alexander, Scotland
M'Intosh, Wm. Carmichael, Scot.

1861.
Anderson, John, Scotland
Clouston, Thomas Smith, Orkney
Pettigrew, James, Scotland

1862.
Black, James Watt, Scotland
Fraser, Thomas Richard, India
Gamgee, Arthur, Florence
Traquair, Ramsay Heatley, Scot.

1863.
Braidwood, Peter Murray, India
Duckworth, Dyce, England
Rutherford, William, Scotland
Spence, Alexander Ingram, Scot.

1864.
Banks, William Mitchell, Scotland
Parsons, Charles, England
Thomson, Robert Bremner, Scot.
Watson, Alfred Marchmont, Jamaica

1865.
Clerk, John Barclay, Scotland
Lightbody, William Henry, Wale
Wyllie, John, Scotland

1866.
Brunton, Thomas Lauder, Scotland
Gould, Franklin, England
Hair, Philip, Scotland

1867.
Nicholson, Henry Alleyne, England
Watson, Morrison, Scotland

1869.
Haddon, John, Scotland
Strachan, John Miller, England

1870.
Caton, Richard, England
Ferrier, David, Scotland

1871.
Cumming, James, Scotland
Pritchard, Urban, England

1872.
Dougall, Joseph.
Rabagliati, Andrea Carlo Francisco, M.A., Edinburgh.

1873.
Bennett, Alexander, Scotland
Bishop, John, England
Campbell, Wm. Macfie, Scotland
Page, David, Scotland

1874.
Foulis, James, Scotland

1875.
Imlach, Francis, England
Major, Herbert Coddington, Jersey
Stirling, William, Scotland

1876.
Cunningham, Daniel John, Scot.
Dickinson, Edw. Harriman, Eng.
Macgillivray, Chas. Watson, Scot.

1877.
Byrom Bramwell, England
George Hunter Mackenzie, Scot.
John Halliday Scott, Scotland.
Graham Steell, Scotland

1878.
James Cossar Ewart, Scotland
Alexander Morison, India
Charles Smart Roy, Scotland
Bryan Charles Waller, England

1879.
John Theodore Cash, England
William John Dodds, England
James Milner Helme, England
William Stewart, Scotland

1880.
Birch, De Burgh, England
Gray, James Allan, Scotland
Hart, David Berry, Scotland
Sutherland, John Francis, Scot.

1881.
Hay, Matthew, Scotland
M'Neill, Roger, Scotland
Moodie, Robert, Scotland
Woodhead, German Sims, England

List of Graduates with Honours in Medicine.

1865.

Honours.....
Lauchlan Aitken, Scotland
George Robinson Barnes, England
Thomas Blunt, England
John Chiene, Scotland
Andrew James Duncan, India
William Allan Jamieson, Scotland
John Aymers M'Dougall, Scotland
Peter Macpherson, Scotland
John Murray Moore, England
John Wyllie, Scotland

1866.

HONOURS.....
- Robert Aldren, England
- Edwin Adam Briggs, England
- Thomas Lauder Brunton, Scotland
- George May Lowe, England
- John Macbeth, M.A., Scotland
- James Ramsay, M.A., Scotland

1867.

HONOURS, ...
- Alexander Crombie, Scotland
- David Douglas Cunningham, Scotland
- Charles Holden, New Brunswick
- George Hunter, Scotland
- Henry Alleyne Nicholson, England
- John Wilson Paton, Scotland
- Christopher Currie Ritchie, Scotland
- Charles Henry Denny Robbs, England
- Peter Alexander Young, Australia

1868.

FIRST-CLASS HONOURS,....
- David Ferrier, Scotland
- James Alexander Russell, Scotland

SECOND-CLASS HONOURS,
- James Wilkie Burman, England
- Charles Stewart Clouston, Orkney
- Robert Dick, Scotland.
- William Young Paton, Scotland

1869.

FIRST-CLASS HONOURS,.....George Amsden, England

SECOND-CLASS HONOURS,
- Byrom Bramwell, England
- George Kincaid Pitcairn, Scotland

1870.

FIRST-CLASS HONOURS,....
- John Fraser, Scotland
- Edwin Hinchcliff, England
- David Page, Scotland
- Robert Spence, Scotland

SECOND-CLASS HONOURS,
- John Archibald Cowan, Scotland
- James Williamson Edmond, India
- William John Kennedy, Scotland
- Alexander M'Dougall, Scotland

1871.

SECOND-CLASS HONOURS,
- Joseph John Brown, England
- John Clelland Clarke, Ireland
- Millen Coughtrey, England

1872.

FIRST CLASS HONOURS,... Colbourne, Louis, England.
Stirling, William, D. Sc., Scotland.

SECOND CLASS HONOURS, Ritchie, James Scotland.
Warne, William Colston, England.

1873.

FIRST CLASS HONOURS.....Alston, John Wilson, Australia

SECOND CLASS HONOURS, Bourk, William, Jamaica
Hodgkinson, Alex., England
Jackson, Fred. Wm., England
Murray, Robt. Davidson, Scotland

1874.

FIRST-CLASS HONOURS.... Brown, James Murdoch, Scotland
Cunningham, Daniel John, Scotland

SECOND-CLASS HONOURS, Ewart, James Cossar, Scotland
M'Diarmid, John, Scotland
Ogilvie, James, Scotland
Ronaldson, Thos. Rutherford, Scotland
Vetch, Charles, Scotland
Currie, Andrew Stark, Scotland
Munro, Archd. Campbell, Scotland

1875.

FIRST-CLASS HONOURS, Cheyne, William Watson, Scotland
Turnbull, Adam Robert, Scotland

SECOND-CLASS HONOURS, Jones, Edward Owen, Wales
Kirkwood, George, Scotland
Macleod, Neil, England
Watkins, Arnold Hirst, England

1876.

FIRST-CLASS HONOURS,... Dodds, Wm. John, England
Grant, David, Scotland

SECOND CLASS HONOURS, ...Smith, Andrew, Scotland

1877.

FIRST-CLASS HONOURS, William Richardson, England
Johnson Symington, England

SECOND-CLASS HONOURS, Isaac Bayley Balfour, Scotland
William Dick, Scotland
Charles Rumney Illingworth, England
James Scott, Scotland
James Milne Chapman, Scotland
Walter James Strang, M.A., Scotland

1878.

FIRST-CLASS HONOURS,...
- Begg, Charles, Scotland
- Guillemard, Bernard James, England
- Hay, Matthew, Scotland
- Morison, Basil Gordon, India
- Robertson, Robert, Scotland
- Wilson, Wilfrid, England

SECOND-CLASS HONOURS,....Handford, Henry, England.

1879.

FIRST-CLASS HONOURS, ..
- Alexander Bruce, M.A. (Aberd.), Scotland
- Johannes Hendrikus Meiring Beck, Cape of Good Hope

SECOND-CLASS HONOURS,
- Alexander Hugh Barbour, Scotland
- John Clouston, Scotland
- Edwin Hyla Greves, England
- George Hurst, England
- Robert Milne Murray, Scotland (M.A. St Andrews)
- William Rowlands, Wales
- George Bailey Silke, Cape of Good Hope
- James Thomson, Scotland
- James Leith Waters, Scotland
- William Lloyd Owen Williams, Wales
- William Wilson, England

1880.

FIRST-CLASS HONOURS, ...
- Dobie, William Henry, England
- Fraser, James William, England
- Male, Herbert Christopher, England.
- Stuart, Thomas Peter Anderson, Scotland

SECOND-CLASS HONOURS,
- Anderson, John Wm., M.A., Scotland.
- Berry, John Bright, England.
- Brock, George Sandison, Scotland.
- Lorans, Henri, Mauritius.
- Potts, James Ashford, England.
- Rand, Richard Frank, England.
- Rose, James Marmaduke, Australia.
- Thomson, Arthur, Scotland.
- Young, William, Scotland.

1881.

FIRST-CLASS HONOURS. ...
- Baron, Barclay Josiah, England
- Gibson, John Lockhart, Australia
- Hewetson, James, England

SECOND-CLASS HONOURS,
- Bowes, Robert, Scotland
- Calder, James Arthur Lawrence, Jamaica
- Hepburn, David, Scotland
- Leslie, George, Scotland
- Proudfoot, George, Scotland
- Smith, Simon Woronzow, America
- Thomson, Matthew Barclay, Australia
- Viljoen, A. Gysbert, Cape of Good Hope
- Wells, Arthur Poulett Lethbridge, Eng.

LIST OF CANDIDATES WHO RECEIVED THE DEGREE OF DOCTOR OF MEDICINE, THE DEGREE OF BACHELOR OF MEDICINE, AND THE DEGREE OF MASTER IN SURGERY, IN THE UNIVERSITY OF EDINBURGH ON MONDAY, AUGUST 1, 1881.

THE DEGREE OF DOCTOR OF MEDICINE WITH THE TITLES OF THE THESES.

*** *Those who have obtained Prizes for their Dissertations.*
** *Deemed worthy of competing for the Dissertation Prizes.*
* *Commended for their Dissertations.*

Adam, John (M.A. Edin.), Scotland, M.B. and C.M., 1877. Typhoid Fever.

Alexander, Reginald Gervase (M.A. Cantab.), England, M.B. and C.M., 1871. Description of a Portable Clinical Urine Case.

Clarke, Henry Joy, England, M.B. and C.M., 1878. Cases in Clinical Surgery.

** *Clouston, Charles Stewart,* Orkney, M.B. and C.M. (with Second Class Honours), 1868. Acute Rheumatism and its Treatment by Salicylates.

5 Collie, David, Scotland, M.B. and C.M., 1878. The Treatment of some Varieties of Insanity.

* Coldstream, Alexander Robert, Scotland, M.B. and C.M., 1874. The Therapeutics of Pilocarpine.

Cox, Joshua John, Ireland, M.B., 1875. Upon Endocarditis; especially its Ulcerative Form.

* Davison, James Thomas Richard, Argentine Republic, M.B. and C.M., 1878. The Physiological Action and some of the Therapeutic Uses of Strong Doses of Digitalis.

* Deverell, Henry George, India, M.B. and C.M., 1877. Angina Pectoris.

10* Douglas, Charles Edward, India, M.B. and C.M., 1877. Spinal Irritation.

** *Gibson, George Alexander* (D.Sc. Edin.), Scotland, M.B. and C.M., 1876. The Physiological Action of Duboisia on the Circulation.
*** Hay, Matthew, Scotland, M.B. and C.M. (with First Class Honours and Ettles Prizeman), 1878. The Action of Saline Cathartics.
** *Lamb, William*, India, M.B. and C.M., 1875. A Contribution to the Physiology of the Splanchnic Area.
** *Lawson, Robert*, Scotland, M.B. and C.M., 1871. The Physiological Action of Extractive Hyoscyamine, and its Employment in the Treatment of Insanity.
15 Low, Alexander Bruce, Scotland, M.B. and C.M., 1878. Penetrating Wounds of Joints.
M'Bride, Peter, Hamburg, M.B. and C.M., 1876. Certain

To face page 156.]

GRADUATES IN MEDICINE.

1881.

Second Class Honours.—Skirving, Robert Scot.

* Oram, Arthur Murray, Australia, M.B. and C.M., 1879.
Oswald, Henry Robert, India, M.B. and C.M., 1875. An Epidemic of Enteric Fever.
25 Pountney, William Edward, England, M.B. and C.M., 1874. Hæmorrhage during Pregnancy, Labour, and after Delivery.
* Shaw, Oliver Cromwell, England, M.B. and C.M., 1877. Hystero-Epilepsy, with special reference to Metalloseopy.
* Sanctuary, Thomas, England, M.B., 1878. Dilatation of the Stomach; its Causes, Symptoms, and Pathological Changes.
Smith, Andrew, Scotland, M.B. (with Second Class Honours), 1876. The Infectiveness of Phthisis.
** *Thomson, David George*, Scotland, M.B. and C.M., 1878. The Prognosis in Insanity.
30* Trotter, Leslie Batten, England, M.B. and C.M., 1874. Goitre in the Forest of Dean.
Turner, William (M.A. Aberd.), Scotland, M.B. and C.M., 1879. Version *versus* Forceps as a Method of Delivery in Cases of Deformity of the Pelvic Brim.
Williams, William Henry, England, M.B. and C.M., 1874. Medical Supervision of Schools.
Williamson, Robert Lamley, England, M.B. and C.M., 1877. The Operation of Skin Grafting.

1881.

FIRST-CLASS HONOURS. ... { Baron, Barclay Josiah, England
Gibson, John Lockhart, Australia
Hewetson, James, England

SECOND-CLASS HONOURS, { Bowes, Robert, Scotland
Calder, James Arthur Lawrence, Jamaica
Hepburn, David, Scotland
Leslie, George, Scotland
Proudfoot, George, Scotland
Smith, Simon Woronzow, America
Thomson, Matthew Barclay, Australia
Viljoen, A. Gysbert, Cape of Good Hope
Wells, Arthur [illegible]

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T

[illegible] C.M., 1877.

[illegible]xander, Reginald Gervase (M.A. Cantab.), England, M.B. and C.M., 1871. Description of a Portable Clinical Urine Case.

Clarke, Henry Joy, England, M.B. and C.M., 1878. Cases in Clinical Surgery.

** *Clouston, Charles Stewart,* Orkney, M.B. and C.M. (with Second Class Honours), 1868. Acute Rheumatism and its Treatment by Salicylates.

5 Collie, David, Scotland, M.B. and C.M., 1878. The Treatment of some Varieties of Insanity.

* Coldstream, Alexander Robert, Scotland, M.B. and C.M., 1874. The Therapeutics of Pilocarpine.

Cox, Joshua John, Ireland, M.B., 1875. Upon Endocarditis; especially its Ulcerative Form.

* Davison, James Thomas Richard, Argentine Republic, M.B. and C.M., 1878. The Physiological Action and some of the Therapeutic Uses of Strong Doses of Digitalis.

* Deverell, Henry George, India, M.B. and C.M., 1877. Angina Pectoris.

10* Douglas, Charles Edward, India, M.B. and C.M., 1877. Spinal Irritation.

** *Gibson, George Alexander* (D.Sc. Edin.), Scotland, M.B. and C.M., 1876. The Physiological Action of Duboisia on the Circulation.

*** Hay, Matthew, Scotland, M.B. and C.M. (with First Class Honours and Ettles Prizeman), 1878. The Action of Saline Cathartics.

** *Lamb, William*, India, M.B. and C.M., 1875. A Contribution to the Physiology of the Splanchnic Area.

** *Lawson, Robert*, Scotland, M.B. and C.M., 1871. The Physiological Action of Extractive Hyoscyamine, and its Employment in the Treatment of Insanity.

15 Low, Alexander Bruce, Scotland, M.B. and C.M., 1878. Penetrating Wounds of Joints.

M'Bride, Peter, Hamburg, M.B. and C.M., 1876. Certain Nervous Symptoms and their Origin.

Macnaughton, William Alexander (M.A. Edin.), Scotland, M.B. and C.M., 1878. Puerperal Eclampsia.

* M'Donald, Duncan (B.Sc. Edin.), Scotland, M.B. and C.M., 1872. Treatment of Malarious Fevers.

*** M'Neill, Roger, Scotland, M.B. and C.M., 1877. The Diagnostic and Prognostic Value of the Initial Rashes of Smallpox.

20* Miller, William Birkmyre (M.A. St And.), Scotland, M.B. and C.M., 1873. Syphilis.

*** Moodie, Robert, Scotland, M.B. and C.M., 1869. Scurvy; with an Outbreak of Scurvy at Thull in the Kuram Valley.

* Murray, James (M.A. Edin.), Scotland, M.B. and C.M., 1876. A Clinical Study of Pityriasis Rubra.

* Oram, Arthur Murray, Australia, M.B. and C.M., 1879. Rickets.

Oswald, Henry Robert, India, M.B. and C.M., 1875. An Epidemic of Enteric Fever.

25 Pountney, William Edward, England, M.B. and C.M., 1874. Hæmorrhage during Pregnancy, Labour, and after Delivery.

* Shaw, Oliver Cromwell, England, M.B. and C.M., 1877. Hystero-Epilepsy, with special reference to Metalloseopy.

* Sanctuary, Thomas, England, M.B., 1878. Dilatation of the Stomach; its Causes, Symptoms, and Pathological Changes.

Smith, Andrew, Scotland, M.B. (with Second Class Honours), 1876. The Infectiveness of Phthisis.

** *Thomson, David George*, Scotland, M.B. and C.M., 1878. The Prognosis in Insanity.

30* Trotter, Leslie Batten, England, M.B. and C.M., 1874. Goitre in the Forest of Dean.

Turner, William (M.A. Aberd.), Scotland, M.B. and C.M., 1879. Version *versus* Forceps as a Method of Delivery in Cases of Deformity of the Pelvic Brim.

Williams, William Henry, England, M.B. and C.M., 1874. Medical Supervision of Schools.

Williamson, Robert Lamley, England, M.B. and C.M., 1877. The Operation of Skin Grafting.

Wilson, John, Scotland, M.B. and C.M., 1878. Medical and Surgical Cases.

35*** WOODHEAD, GERMAN SIMS, England, M.B. and C.M., 1878. Medulla Oblongata.

21ST APRIL 1882.—THE DEGREE OF M.D.

Thomas Nicholas German Te Water (B.A. Cape of Good Hope), M.B. and C.M. 1879.

THE DEGREES OF BACHELOR OF MEDICINE AND MASTER IN SURGERY.—1ST AUGUST 1881.

Small CAPITALS *indicate that the Candidate has passed the Examinations with First Class Honours.*

Italics indicate that the Candidate has passed the Examinations with Second Class Honours.

Aitken, James Hepburn, Scotland.
Baildon, Francis Joseph, England.
Balfour, John Hutton, Scotland.
Bannerman, William Burney, Scotland.
5 BARON, BARCLAY JOSIAH, England.
Bateson, John Francis, England.
Bennett, Richard Charles, Trinidad.
Black, John Lyell, Scotland.
Blaikie, Robert Henry, Scotland.
10 Borthwick, Thomas, Scotland.
Bowes, Robert, Scotland.
Bradley, William Edward, England.
Brodie, William Haig, Scotland.
Bruce, David, Australia.
15 Buchan, John Greig, Orkney.
Calder, James Arthur Lawrence, Jamaica.
Clark, Henry Martyn, India.
Corser, Francis Richard Sandford, England.
Cox, James Wharton, Sydney.
20 Crawford, Dirom Gray, India,
Dalzell, William Robert, India.
Delepine, Camille Victor, France.
Doig, William, Scotland.
Douie, William Jones, Scotland.
25 Doyle, Arthur Conan, Scotland.
Dunlop, James Dunlop, Scotland.
Fearns, Robert, Scotland.
Ferguson, James Mitchell, Scotland.
Fitzpatrick, Manley Montague, England.
30 Fraser, Frank, England.
Fraser, John Hosack, Scotland.
Fry, William Walter Baldock, England.
GIBSON, JOHN LOCKHART, Australia.
Grant, Alexander (M.A.), Scotland.
35 Grant, Leonard, Scotland.
Grant, Ogilvie, Scotland.
Hardie, William, England.
Hartley, Alfred, England.
Harwood, Septimus, England.

Haynes, Sydney Walter, England.
Heath, Joseph, Ireland.
Hepburn, David, Scotland.
Herman, Christian Lawrence, Cape Town.
HEWETSON, JAMES, England.
Hoffman, Josias Matthiam, Africa.
Hosegood, William, England.
Houseman, James Gilpin, England.
Huxtable, Louis Ralston, Tasmania.
Innes, Francis Wm., Rangoon.
Jelly, Frederick Adolphus, England.
Johnston, Robert M'Kenzie, Scotland.
Kennedy, Charles, Scotland.
Kerr, William Watt (M.A.), Scotland.
King, Herbert Dove (M.A., B. Sc.), England.
Kirkpatrick, Roger, India.
Laidlaw, Robert, Scotland.
Lawrie, Robert, England.
Lawson, Robert James, Scotland.
Leslie, George, Scotland.
Low, Charles, Australia.
Macdonald, James (M.A.), Scotland.
Macdonald, Roderick John Johnstone, England.
Mackay, George Hugh, Scotland.
Mackew, Samuel, England.
Maclean, Norman, Scotland.
Macleish, Archibald Lyle (M.A. Edin.), Scotland.
Macleod, William Aitken, Scotland.
Macrae, John Farquhar, Scotland.
Malcolm, John David, Scotland.
Mercer, Walter, Scotland.
Mill, James, Scotland.
Morrison, William, Scotland.
Mounsey, George Harold, England.
Mudie, Henry Ferguson, Scotland.
Murray, Walter Galbraith, Ireland.
Munro, Robert Hector, Scotland.
Myles, Thomas Patrick, Scotland.
Nichol, Charles Edward, England.
Norfor, Brooke Owen, India.
Ogilvy, Walter Stewart, Scotland.
Orr, James, Ireland.
Pechell, Augustus Alexander, England.
Perkins, George Chapman Steele, England.
Phillips, Henry Whitby, England.
Proudfoot, George, Scotland.
Renwick, George James, Australia.
Ridgley, Thomas, England.
Ritchie, David William Leone, Scotland.
Robertson, John Robert Stevenson, England.
Rohan, George Virgile, Mauritius.
Ross, James Maxwell (M.A.), Scotland.
Rowland, Ernest Daniel, England.
Russell, Alexander Fraser, Scotland.
Sauer, Johannes, Africa.
Scholtz, William Christiaan, Cape of Good Hope.
Sevier, Alfred Hynam, Russia.
Sibbit, Robert Smith, England.

Sinclair, Robert Fraser, Scotland.
Sinclair, William James, Scotland.
Smith, John (M.A.), Scotland
Smith, Simon Woronzow, America.
Soutar, James Greig, Scotland.
Sorley, John, Australia.
Stalker, Alexander Mitchell (M.A.), Scotland.
Stalker, Daniel (M.A.), Scotland.
Stallard, John Prince, England.
Standen, Peter, England.
Stiell, Gavin, Scotland.
Stuart, Charles, Scotland.
Sutherland, Robert Thomas, Natal.
Thomas, Adolphe Harrison, England.
Thomson, John, Scotland.
Thomson, Matthew Barclay, Australia.
Tuke, John Batty, New Zealand.
Tulloch, John Patrick, Scotland.
Valentine, John, Scotland.
Viljoen, Anthony Gysbert, Cape of Good Hope.
Walker, Edward Brooking Cornish, England.
Ward, Alfred, England.
Watson, James Smith, Scotland.
Waugh, John (M.A. Edin.), Scotland.
Wells, Arthur Poulett Lethbridge, England.
Welsh, David, Scotland.
Welsh, Robert Crosbie, Scotland.
Williams, John Humphry, Wales.
Williamson, Richard Frederick, England.
Wilson, George, Scotland.
Wolseley, Henry John, Demerara.

OCTOBER 24, 1881.

Brown, Thomas, Scotland.

NOVEMBER 26, 1881.

Brydon, William, Scotland.

21ST APRIL 1882.

John Macpherson, Scotland.
David Robertson Dobie, Scotland.

THE DEGREE OF BACHELOR OF MEDICINE.—1ST AUGUST 1881.

Aitchison, Henry Hyslop, England.
Cox, Frederick John William, Scotland.
Hern, John, England.
Orr, William Young, Scotland.

THE DEGREE OF MASTER IN SURGERY.—1ST AUGUST 1881.

Robert Wilkie Smith, Scotland.

21ST APRIL 1882.

Archibald Campbell Munro, M.B., Scotland.

The Ettles Prize for 1881 *has been awarded to*

BARCLAY JOSIAH BARON, M.B., C.M.

The Beaney Prize has been awarded to
DAVID HEPBURN, M.B., C.M.

The Goodsir Prize has been awarded to
MATTHEW HAY, M.D.

The Wightman Prize has been awarded to
FRANCIS WILLIAM GRANT.

The Buchanan Scholarship has been awarded to
JAMES HEWETSON, M.B., C.M.

Graduation in Science.

REGULATIONS AS TO DEGREES IN SCIENCE.

Two Degrees in Science are conferred by the University of Edinburgh, viz.,—Bachelor of Science (B.Sc.,) and Doctor of Science (D.Sc.). Both these Degrees are conferred in Physical and Natural Science, in Public Health, and in Engineering. Candidates should apply to Professor Crum Brown, Convener of Committee for Sections A, B, C.

In Mental Science and in Philology (Sections D and E) the Degree of Doctor of Science only is conferred. Candidates should apply to the Dean of the Faculty of Arts, Convener of Committee for Sections D and E.

SECTION A.—DEGREE OF DOCTOR IN PHYSICAL AND NATURAL SCIENCE.

I.—QUALIFICATIONS REQUIRED IN CANDIDATES.

1. Candidates for Degrees in Physical and Natural Science must, unless exempted, pass a Preliminary Examination in English, Latin, Arithmetic, the Elements of Mathematics, and the Elements of Mechanics; and in at least two of the following subjects:—Greek, French, German, Higher Mathematics, Natural Philosophy, Logic, and Moral Philosophy.

II.—EXEMPTIONS FROM EXAMINATION.

(*a.*) Bachelors or Masters of Arts, by examination, of British or recognised Indian or Colonial Universities.

(*b.*) Bachelors or Doctors of Medicine of British or recognised Indian or Colonial Universities.

(*c.*) Holders of two Departmental Certificates in the Faculty of Arts of this University.

(*d.*) Candidates who have passed in this University the Entrance Examination for Curriculum of Three Sessions for Degrees in Arts in Latin, Greek and Mathematics, are exempted from the Preliminary Examination in Latin, Arithmetic, and Elements of Mathematics and are held to have passed in Greek and Higher Mathematics as optional subjects.

(*e.*) Matriculated Students of the University of London.

(*f.*) Students who have been admitted by Examination to the Royal Indian Engineering College, Coopers Hill, and who have obtained 50 per cent. of the marks in Latin or in Greek in the Competitive Examination for entrance to that College. Should such Students not bring evidence of having obtained 50 per cent. in either of these subjects, they will be required to pass the Preliminary Examination in Latin.

(*g.*) Holders of Certificates of having passed the Leaving Examinations of the Universities of Oxford and Cambridge when certified as equivalent to a pass in Responsions at Oxford and the First Examination at Cambridge.

(*h.*) The Examinations of the Bodies recognised as exempting from the Preliminary Examination in Medicine, also exempt from the Registration Examination for Degrees in Science.

Candidates for this Preliminary Examination are examined at the same time as those for entrance into the study of medicine. For further details as to the Preliminary Examinations see Notices under "Medical Graduation" in the Calendar.

2. They must also produce evidence of attendance on qualifying Classes embracing the subjects included in the Science Examination which they purpose to undergo.

3. The attendance on Science Classes for the Degree of Bachelor of Science must extend over three Academic years, one of which must be passed at the University of Edinburgh, the other two years either at this University, or at Universities or Institutions* recognised by and approved by this University. Classes of Chemistry, of Practical Chemistry, of Botany, and of Zoology, which are recognised for the First Professional Examination for Degrees in Medicine are also recognised for the First Bachelor of Science Examination.

4. Each Academic year must be constituted by attendance on Science Classes during at least two full winter courses, or

* The Institutions to be approved of by the University must be of a high class, such as the Royal School of Mines, London, the Ecole Centrale, or the Ecole des Mines, Paris.

one full winter course, and two full summer courses. Continuous work in a scientific laboratory extending over a period of not less than five months will be reckoned equivalent to a full winter course of lectures, and continuous work in a scientific laboratory extending over a period of three months will be reckoned equivalent to a full summer course of lectures.

5. Every Candidate for a Degree in Science must be matriculated for the year in which he appears for Examination or Graduation.

II.—EXAMINATIONS.

For the Degree of Bachelor of Science, there are two Examinations, conducted by written questions, as well as orally and practically.

(*a.*) FIRST BACHELOR OF SCIENCE EXAMINATION.

1. The First Examination for B.Sc. is as to the general knowledge of the Candidate on the following subjects, viz. :—

MATHEMATICS.	ZOOLOGY, including COMPARATIVE ANATOMY.
NATURAL PHILOSOPHY.	BOTANY.
CHEMISTRY.	

2. The Examinations in Mathematics and Natural Philosophy take place on the days of Examination for these subjects announced in the *Regulations for Graduation in Arts.*

3. The Examinations in Chemistry, Zoology, and Botany, take place at the same time as the examinations on these subjects, announced in the *Regulations for Graduation in Medicine.*

4. Candidates may appear for this Examination at any period of Examination subsequent to their attendance on the necessary classes.

5. Masters of Arts who have taken honours in the Natural Sciences after passing the Examinations for M.A. in this University are exempted from the First Bachelor of Science Examination.

6. Masters of Arts and holders of departmental certificates in the Department of Mathematics in this University are exempted from Examination in Mathematics and Natural Philosophy.

7. Candidates who have passed the First Professional Examination for Degrees in Medicine in this University are exempted from Examination in Chemistry, Zoology and Botany.

(*b.*) SECOND BACHELOR OF SCIENCE EXAMINATION.

1. The Second B.Sc. Examination is divided into the following groups, one of which must be professed by the candidate :—

(*a.*) THE MATHEMATICAL SCIENCES, .	Higher Mathematics, Natural Philosophy.
(*b.*) THE PHYSICAL EXPERIMENTAL SCIENCES, ...	Experimental Physics, Chemistry.
(*c.*) THE NATURAL SCIENCES, . .	Zoology, Botany, Physiology, Geology.

2. The Examinations in the first two of these departments (except in Chemistry) will take place at the same time as the Examination for the Degree of M.A., and in the last, (and in Chemistry,) at the same time as the Examination for the First M.B. Professional Examination.

3. A Candidate who has passed the First B.Sc. Examination may proceed to the Second, after an interval of six months.

4. A Candidate who has passed the First and Second B.Sc. Examinations will be recommended to the Senatus for that Degree, which will be conferred at one of the usual times appointed for giving Degrees.

(*c.*) DOCTOR OF SCIENCE EXAMINATION.

1. A Candidate who has received the Degree of B.Sc. may proceed to that of Doctor of Science, after a lapse of twelve months.

2. A Candidate for the Degree of D.Sc. must profess one of the above mentioned sciences, of which he will be expected to have a thorough knowledge.

3. He must submit a Thesis containing some original Researches on the subject of his intended Examination, and such Thesis must be approved before the candidate is allowed to proceed to Examination.

4. The Degree of D.Sc. will not be conferred on any Candidate who has not completed his 21st year.

IV.—OUTLINE OF SUBJECTS REQUIRED IN EXAMINATIONS FOR DEGREES IN SCIENCE.

FIRST BACHELOR OF SCIENCE EXAMINATON.

1. MATHEMATICS.

Euclid, Books i., ii., iii., iv., vi., and xi., or their equivalent, with their application to Mensuration.

Algebra, Trigonometry, Conic Sections, Geometrical and Analytical.

2. NATURAL PHILOSOPHY.

(*a.*) APPLIED MATHEMATICS, including the treatment by Elementary Geometry, Algebra, and Trigonometry, of the following subjects (such as may reasonably be acquired in one or two sessions' attendance at a course of Natural Philosophy)—

Kinematics, including Velocity, Acceleration, Angular Velocity, Simple Harmonic Motion, &c., and their composition and resolution.

Abstract Dynamics, including Elementary Statics, Kinetics, Hydrostatics, and Hydrokinetics.

Geometrical Optics.

Plane Astronomy.

(*b.*) EXPERIMENTAL PHYSICS, including

Laws of Motion.

Properties of Matter.

Sound and Harmonics.

Light, with the fundamental principles of the Undulatory Theory.

Heat, with the fundamental principles of the Dynamical Theory.

Electricity, including the Experimental laws of Static and Galvanic Electricity, Electro-Magnetism, Magnetism, and Induced Currents.

Conservation of Energy as the great experimental law of physical phenomena.

3. CHEMISTRY.

Classification of Elements. General Laws of Chemical Combination and Action, as illustrated in the simpler compounds of the more commonly occurring elements.

Symbolic Notation.

Preparation and Properties of the Non-Metallic Elements and their chief Compounds.

Classification and General Properties of Acids, Bases, and Salts—Electrolysis of Salts.

Oxygen, Ozone, Oxidation and Reduction.

Hydrogen, Water, Peroxide of Hydrogen, Chlorine, Hydrochloric Acid, Hypochlorites, Chlorates, Perchlorates, Bromine, Hydrobromic Acid, Bromates, Iodine, Hydriodic Acid, Iodates, Periodates, Fluorine, Hydrofluoric Acid. Sulphur, Sulphuretted Hydrogen, Oxides of Sulphur, Sulphites, Sulphates, Thiosulphates, Chlorides of Sulphur, Chloride of Sulphuryl, Nitrogen, The Atmosphere, Oxides of Nitrogen, Nitrates, Nitrites, Ammonia, Ammonia Salts, Phosphorus, Oxides of Phosphorus, Chlorides and Oxychloride of Phosphorus, Phosphates, Phosphites, Hypophosphites, Boron, Boracic Acid, Borates, Fluoride of Boron, Silicon, Silica, Silicates, Chloride of Silicon, Fluoride of Silicon, Hydrofluosilicic Acid.

Carbon, Oxides of Carbon, Carbonates, Phosgene. Classification of Carbon Compounds. Marsh Gas and its Homologues. Methylic and Ethylic Alcohols and Ethers. Methylamine, Dimethylamine, Trimethylamine, Tetramethylammonium. Formic and Acetic Acids, Aldehyde, Acetone, Olefiant Gas, Oxalic Acid, Lactic Acid. Tartaric Acid, Citric Acid. Fats and Oils, Saponification, Glycerine, Cellulose, Sugars, Starch. Products of Distillation of Wood and of Coal. Coal-Gas, Coal-Tar. Benzol, Benzoic Acid, Oil of Bitter Almonds. Hydrocyanic Acid, Cyanides, Cyanates, Sulphocyanates, Urea.

The following metals, their Oxides, Sulphides and more important Salts. Potassium, Sodium, Magnesium, Calcium, Strontium, Barium, Aluminium, Zinc, Cadmium, Manganese, Chromium, Iron, Nickel, Cobalt, Bismuth, Lead, Copper, Mercury, Silver, Tin, Gold, Platinum, Antimony, Arsenic.

Simple Qualitative Analysis. [*The Examination in Analysis is conducted practically.*]

4. Zoology and Comparative Anatomy.

The general characters of the Animal Kingdom, and the general Structure and Organization of Animals. Principles of Zoological Classification. General plan of structure, and physiology of the Types: Protozoa, Porifera, Cœlenterata, Echinodermata, Vermes, Articulata, Mollusca, and Vertebrata.

The special distinctive characters of the following groups, with a knowledge of familiar examples of each, and the conditions and circumstances under which they occur; candidates will be required to refer any specimens shewn to them by the Examiner for this purpose to their respective groups: Rhizopoda, Infusoria; Porifera silicea, calcarea; Zoantharia, Alcyonaria, Hydrozoa; Echinidea, Asteridea, Crinoidea; Platyelmia, Nematelmia, Annelida; Crustacea, Arachnida, Myriapoda, Insecta; Lamellibranchiata, Gastropoda, Cephalopoda; Pisces, Amphibia, Reptilia, Aves, Mammalia.

5. Botany.

Candidates to be examined on the following subjects:—

A. Structural Botany:—

(*a.*) *Histology*—Structural elements, their general character, chemical and anatomical. General structure of Roots, Stems and Leaves.

(*b.*) *Organography*—General characters and modes of arrangement of the nutritive and reproductive organs, Root, Stem, Leaf, Floral envelopes, Stamen, Pistil, Fruit and Seed. Vernation, Phyllotaxis, Inflorescence, arrangement and insertion of Floral parts, Placentation.

B. Physiological Botany:—

(*a.*) *Nutrition*—Absorption, Elaboration of organic out of inorganic material, Digestion, Metastasis, Respiration, Movement of the Sap, Growth.

(*b.*) *Reproduction*—Fertilisation and Embryogeny in Phanerogamia, and the Higher Cryptogamia. Germination. Asexual reproduction or Gemmation.

C. Systematic Botany:—

The Candidate may be asked to define given Sub-kingdoms, Divisions, Classes, Series or Sub-classes, or to refer given Plants to such Groups. He may also be examined on any of the following Natural Orders:—

Ranunculaceæ.
Papaveraceæ.
Cruciferæ.
Violaceæ.
Caryophyllaceæ.
Malvaceæ.
Leguminosæ.
Rosaceæ.
Onagraceæ.
Umbelliferæ.
Dipsacaceæ.
Compositæ.
Valerianaceæ.
Campanulaceæ (including Lobeliaceæ).
Primulaceæ.
Solanaceæ (including Atropaceæ).
Scrophulariaceæ.
Labiatæ.
Polygonaceæ.
Coniferæ.
Liliaceæ.
Amaryllidaceæ.
Iridaceæ.
Orchidaceæ.
Gramineæ.
Filices.
Musci.

SECOND BACHELOR OF SCIENCE EXAMINATION.

(*a.*) THE MATHEMATICAL SCIENCES.

1. MATHEMATICS.

Algebra, including the Theory of Equations.
Trigonometry, Plane and Spherical.
Analytical Geometry of two and three dimensions.
The Differential and Integral Calculus.

2. NATURAL PHILOSOPHY.

For the *Second Examination*, the same subjects will be taken, as in the *First* (See above, p. 14), but they will be carried out with a higher application of Mathematics, and with a more strict examination into the candidate's acquaintance with the Experimental part of the subject.*

(*b.*) THE PHYSICAL EXPERIMENTAL SCIENCES.

1. EXPERIMENTAL PHYSICS.

Candidates will be required to show considerable familiarity with the processes required for the determination of physical constants—such as, for instance, *the Specific Heat, the Specific Inductive Capacity, the Thermal and Electric Conductivity of a substance; the Velocity of Light, or of Sound; the Magnetic Dip, Variation, and Horizontal Intensity, &c., &c.*

2. CHEMISTRY.

Inorganic Chemistry.
Organic Chemistry.
Relation between Chemical and Physical Properties.
Complex Qualitative Analysis. [*The Examination in Analysis will be conducted practically.*]

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* Candidates who have passed the First B.Sc. Examination, and have passed in the Department of Mathematics for the M.A. Degree with First Class Honours, are held to have passed the Second B.Sc. Examination in the Department of the Mathematical Sciences on paying the fee.

(*c.*) THE NATURAL SCIENCES.

1. ZOOLOGY AND COMPARATIVE ANATOMY.

The same subjects as for the First Bachelor of Science Examination, with these additions:—In General Zoology: A fuller knowledge of progressive organization and the specialization of function, of the general principles of animal morphology, and of geographical distribution. In classification: A knowledge of the characters of all animal groups of the value of *classes*, and of the recent *orders* of Pisces, Amphibia, Reptilia, Aves, and Mammalia. A general knowledge of the structure of the vertebrate skeleton.

2. ANIMAL PHYSIOLOGY.

The functions of Epithelium, Blood Corpuscles, Connective Tissue, Cartilage, Bone, Muscle, and Nerve Tissues.

The Circulation of the Blood in the Vertebrata.

The Composition and Functions of the Blood.

The Process of Respiration in Vertebrata.

The Alimentary Substances necessary for the maintenance of animal life.

The Processes of Mastication and Deglutition.

Secretion by the Salivary, Gastric, and Intestinal Glands, Pancreas and Liver, together with the composition of the respective Secretions and their actions on the Food.

Absorption from the Alimentary Canal.

Glucogenic Function of the Liver.

Functions of the Lymph and of Blood Glands.

Functions of the Kidneys and Skin.

The Temperature of Animals.

The Functions of the two Roots of a Spinal Nerve, and the Mechanism of Reflex Action.

The Functions of the Brain and Spinal Cord in Fishes, Amphibians and Mammals.

The Sense Organs of a Mammal.

The chief Phenomena in the Development of a Bird.

A knowledge of the microscopical structure of the several Tissues and Organs of the Body will also be required, and the candidate will be expected to recognise specimens of them under the microscope.

Text-Books.—Newton's "Animal Physiology," Huxley's "Lessons in Physiology," Bradley's "Manual of Comparative Anatomy and Physiology," "Foster and Balfour on Development," Part I.

3. BOTANY.

In Structural and Physiological Botany, the examination includes the same subjects as that for the First Bachelor of Science examination.

In Systematic Botany the subjects are also the same as for the first Bachelor of Science examination, but extended by inclusion of the principal Natural Orders of the Vegetable Kingdom.

4. GEOLOGY, INCLUDING PALÆONTOLOGY AND MINERALOGY.

Physical Geography, Meteorology, and Dynamical Geology—The nature and operation of Geological agents: Rain, Rivers, Ice, the Sea, Earthquakes, Volcanoes, Movements of Upheaval and Depression.

Mineralogical and Petrographical Geology—Characters of Rock-forming Minerals: Composition, Origin, and Distribution of Rocks.

Structural Geology—The Structure of Rock-masses: Joints, Bedding, Cleavage, Foliation, Metamorphism, Faults, Unconformability, Denudation.

Stratigraphical Geology—The History of the Geological Formations of the British Islands.

Palæontological Geology—Characters and Distribution in time of the more important Genera and Orders found fossil in Britain.

DOCTOR OF SCIENCE EXAMINATION.

1. MATHEMATICS.

The candidate will be required to show very high attainments in one of the following subjects :—

1. Geometry and Trigonometry.
2. Analytical Geometry.
3. Algebra.
4. The Differential Calculus generally.
5. Special departments, such as the Calculus of Variations, the Theory of Determinants, Quaternions, &c.

2. NATURAL PHILOSOPHY.

Candidates are required to pass a *searching* examination in *one* of the following subjects or groups of subjects (in all its details), and to shew more than a mere elementary knowledge of at least *two* others :—

(A.) APPLIED MATHEMATICS.

1. *Abstract Dynamics*, including *Kinematics*.
2. *Acoustics* and *Theory of Light*.
3. *Conservation of Energy* including the *Dynamical Theory of Heat*.
4. *Electricity*, including the mathematical theories of *Static and Voltaic Electricity, Induction, Magnetism, and Electro-Magnetism*.
5. *Physical Astronomy*, including the *Lunar and Planetary Theories*, the *Figure of the Earth, Precession, and Nutation*.

(B.) EXPERIMENTAL PHYSICS.

6. *Properties of Matter.*
7. *Sound and Light.*
8. *Heat and Energy* (generally).
9. *Electricity, Magnetism,* &c.

(C.) PRACTICAL ASTRONOMY.

1. Nautical Astronomy, and such applications of received science as are necessary in finding angular positions, as latitude and longitude, in voyaging over the surface of the globe.

2. Terrestrial Astronomy, and those processes, both of observation and computation, which are employed in determining the size and figure of the earth, as a base-line for further measures.

3. Cosmical Astronomy, and the determination, by the most refined operations, of the distances, magnitudes, masses, and movements of the heavenly bodies.

In each of these branches, a knowledge of the principles of the usual instruments employed in them, will be required; some observations with one at least of them, and upon one or more of the problems, must have been taken under the open sky; and practical ability shewn, in eliminating by calculation instrumental and terrestrial errors, as well as in exhibiting the numerical value of the astronomical result, both with regard to what has been done by previous good observers in the same field, and to the predictions of the best theory.

3. CHEMISTRY.

The candidate will be required to pass a searching examination in one of the following branches :—

1. The Chemistry and Chemical Technology of Inorganic Bodies, including Metallurgy.
2. Organic Chemistry.

And to shew a thorough practical acquaintance with Chemical Analysis in all its branches.

4. ZOOLOGY AND COMPARATIVE ANATOMY.

The same subjects as for the Bachelor of Science Examination, with these further additions : — In General Zoology : A more thorough knowledge will be required of the modifications of special organs throughout the animal kingdom ; and the Candidate may be examined upon the leading phenomena of animal reproduction and development, including the phenomena of germination, metagenesis, parthenogenesis, and metamorphosis. In classification : a *competent* knowledge will be required of the details of classification of one of the invertebrate types, to be selected by the Candidate.

5. Animal Physiology.

The candidate will be expected to show a thorough knowledge of Human Physiology, together with the Comparative Physiology of the Nervous, Circulatory, and Respiratory Systems. He will also be examined practically in Histology, Physiological Chemistry, and Physiological Physics.

6. Botany.

Characters of the Natural Orders of the Vegetable Kingdom, together with a practical knowledge of the genera and species of some particular group to be selected by the candidate, and approved by the Examiners; along with Botanical Geography and Fossil Botany.

7. Geology including Palæontology and Mineralogy.

In addition to a more searching test of the knowledge of the subjects prescribed for the Second Bachelor of Science Examination, Candidates will be required to show some acquaintance with the Geology and Palæontology of foreign countries as well as of the British Islands. It will be necessary that they evince sound practical knowledge. To test their acquirements in this respect, they will be asked to identify and describe specimens of minerals, rocks, and fossils placed before them; and from a geological map, which will be furnished to them, to write a paper (with sections) on the geology of the district to which the map refers.

ALEX. CRUM BROWN,
Convener.

SECTION B.—DEGREES OF BACHELOR AND DOCTOR IN ENGINEERING.

The Degrees of *Bachelor of Science* and *Doctor of Science* are open to Candidates submitting themselves for examination in Engineering according to the subjoined Rules.

1. Candidates must have the qualifications required by Section A, pp. 11, 12.

2. There will be two examinations in Science for the Degree of *Bachelor of Science*, and a third examination for the Degree of *Doctor of Science*. The examinations will be written, oral, and practical.

3. The first examination is as to the general knowledge of the Candidate on the following subjects, viz. :—

Mathematics.
Natural Philosophy.
Chemistry.

4. This examination is called the *First Bachelor of Science Examination in Engineering*, and is compulsory on all who do not possess the

qualifications which entitle a Candidate to be exempted from the First Bachelor of Science Examination in Section A.

5. The Candidate who has passed the *First Bachelor of Science Examination* (or has the qualifications necessary to exempt him from this Examination), may proceed to the Second Examination after an interval of six months. This is called the *Second Bachelor of Science Examination.* The Candidate will be examined in the following subjects :—

MATHEMATICS applied to Mechanics.
ENGINEERING.
DRAWING.

6. The Candidate, after passing the Second Examination, shall be recommended to the Senatus for the Degree of Bachelor of Science.

7. A Candidate who has received the Degree of B.Sc., and who desires to proceed to the Degree of *Doctor of Science*, may present himself for a third examination, after the expiry of twelve months.

8. The examinations for Degrees will be conducted by University Examiners, and an Examiner appointed by the University Court.

9. The Degree of D.Sc. will not be conferred on any Candidate who has not completed his 21st year.

FIRST BACHELOR OF SCIENCE EXAMINATION.

(*a*). MATHEMATICS—

Arithmetic.

Euclid, Books i., ii., iii., iv., vi., and xi., or their equivalent, with their application to Mensuration.

Algebra, Trigonometry, Conic Sections, Geometrical and Analytical.

(*b*.) NATURAL PHILOSOPHY—

(*a*.) APPLIED MATHEMATICS, including the treatment by Elementary Geometry, Algebra, and Trigonometry, of the following subjects (such as may reasonably be acquired in one or two sessions' attendance at a course of Natural Philosophy)—

Kinematics, including Velocity, Acceleration, Angular Velocity, Simple Harmonic Motion, &c., and their composition and resolution.

Abstract Dynamics, including Elementary Statics, Kinetics, Hydrostatics, and Hydrokinetics.

Geometrical Optics.

Plane Astronomy.

(*b*.) EXPERIMENTAL PHYSICS, including

Laws of Motion.

Properties of Matter.

Sound and Harmonies.

Light, with the fundamental principles of the Undulatory Theory.

Heat, with the fundamental principles of the Dynamical Theory.

Electricity, including the Experimental laws of Static and Galvanic Electricity, Electro-Magnetism, Magnetism, and Induced currents.

Conservation of Energy as the great Experimental law of physical phenomena.

(*c.*) CHEMISTRY—

Classification of Elements. General Laws of Chemical Combination and Action, as illustrated in the simpler compounds of the more commonly occurring elements.

Symbolic Notation.

Preparation and Properties of the Non-Metallic Elements and their chief Compounds.

Classification and General Properties of Acids, Bases, and Salts—Electrolysis of Salts.

Oxygen, Ozone, Oxidation and Reduction.

Hydrogen, Water, Peroxide of Hydrogen, Chlorine, Hydrochloric Acid, Hypochlorites, Chlorates, Perchlorates, Bromine, Hydrobromic Acid, Bromates, Iodine, Hydriodic Acid, Iodates, Periodates, Fluorine, Hydrofluoric Acid. Sulphur, Sulphuretted Hydrogen, Oxides of Sulphur, Sulphites, Sulphates, Thiosulphates, Chlorides of Sulphur, Chloride of Sulphuryl, Nitrogen, The Atmosphere, Oxides of Nitrogen, Nitrates, Nitrites, Ammonia, Ammonia Salts, Phosphorus, Oxides of Phosphorus, Chlorides and Oxychloride of Phosphorus, Phosphates, Phosphites, Hypophosphites, Boron, Boracic Acid, Borates, Fluoride of Boron, Silicon, Silica, Silicates, Chloride of Silicon, Fluoride of Silicon, Hydrofluosilicic Acid.

Carbon, Oxides of Carbon, Carbonates, Phosgene. Classification of Carbon Compounds. Marsh Gas and its Homologues. Methylic and Ethylic Alcohols and ethers. Methylamine, Dimethylamine, Trimethylamine, Tetramethylammonium. Formic and Acetic Acids, Aldehyde, Acetone, Olefiant Gas, Oxalic Acid, Lactic Acid. Tartaric Acid, Citric Acid. Fats and Oils, Saponification, Glycerine, Cellulose, Sugars, Starch. Products of Distillation of Wood and of Coal. Coal-Gas, Coal-Tar. Benzol, Benzoic Acid, Oil of Bitter Almonds. Hydrocyanic Acid, Cyanides, Cyanates, Sulphocyanates, Urea.

The following metals, their Oxides, Sulphides and more important Salts. Potassium, Sodium, Magnesium, Calcium, Strontium, Barium, Aluminium, Zinc, Cadmium, Manganese, Chromium, Iron, Nickel, Cobalt, Bismuth, Lead, Copper, Mercury, Silver, Tin, Gold, Platinum, Antimony, Arsenic.

Simple Qualitative Analysis. [*The Examination in Analysis is conducted practically.*]

SECOND BACHELOR OF SCIENCE EXAMINATION.

(*a.*) MATHEMATICS applied to Mechanics—

The Applications of Mathematics (as far as the Elements of the Differential and Integral Calculus) to
Kinematics.
Statics of Rigid Solids, Elastic and Perfectly Flexible Bodies, and Perfect Fluids.
Kinetics of a Particle, of a Flexible Cord, and of Rigid Solids.
The Simpler Portions of Kinetics of Perfect Fluids.

(*b.*) ENGINEERING—

Properties of Materials.—General Properties, with special knowledge of their Strength, and the Purposes to which they are applied, with some knowledge of their Cost.

Strength and Stability of Structures Designed by Civil Engineers.—Metal and Wooden Bridges and Roofs. Arches in Masonry. Walls. Retaining Walls. Embankments. Cuttings. Breakwaters. Aqueducts. Pipes. Canals.

Strength and Forms of the Elements of Machinery.

Design of Combined Structures.—An elementary knowledge of the Design of Bridges and Roofs, of Reservoirs, Embankments, collecting and distributing Machinery of Waterworks, and of the main features of Railway construction, Harbours, and Drainage.

Design of Machinery.—An elementary knowledge of the construction of the Steam Engine, stationary and locomotive, of Prime Movers driven by Water, of Mill-wright work, and the general arrangement of Factories.

Prime Movers.—Sources of Power. Estimate of Power required. Measurement of work done. Application of the principles of Dynamics.

(*c.*) DRAWING—

The Student must be able to represent neatly, in the style used by engineers, Plans and Sections of Buildings and Machinery, and also to make Engineering Sketches with Figured dimensions from actual objects.

The candidate who successfully passes the two examinations will be recommended to the Senatus for the Degree.

DOCTOR OF SCIENCE EXAMINATIONS.

1. Every candidate for this Degree must prove that he has passed under a civil engineer in practice. He must then profess one, and not

more than one, of the sub-divisions in each of the two following groups of subjects :—

I.—Practical Engineering,
- (*a.*) The design of Machinery, with complete Drawings, Specifications and Estimates.
- (*b.*) The preparation of Designs, Specifications, and Estimates for Civil Engineering work.

II.—Applied Science,
- (*a.*) Applied Mathematics.
- (*b.*) Chemistry.
- (*c.*) Geology.
- (*d.*) One Branch of Natural Philosophy.
- (*e.*) Telegraphy.

2. The class of machinery, or the special engineering work on which the student is examined, will be chosen with reference to the special work in which he has been engaged during his pupilage.

3. The examinations in Group I. will consist in requiring the actual execution of the required work by the student within a month of his receiving the instructions of the Examiners. At the end of that time he will send in his drawings, specifications, estimates, and calculations. When these have been examined and approved, the student will be required to submit to an oral examination in connection with the work submitted as his own. By this examination the authenticity of the work will be tested.

4. A high degree of proficiency will be required in the special branch chosen by the student.

FEES.*

The following is the scale of fees which are charged for the Degrees in Science (sects. A. and B) :—

1. For the preliminary examination, or for registration of qualification, ...	£1	1	0
2. For the First Bachelor of Science examination,	2	2	0
3. For the Second Bachelor of Science examination,	2	2	0
4. For the Doctor of Science examination, . .	5	5	0
	£10	10	0

Candidates for the Preliminary Examinations should announce their names and addresses to the Registrar, and pay the fees, on or before the 7th of March, or the 27th of September, and for all the other Science Examinations, on or before the 22d of March, or the 4th of

* Every candidate is required before graduation to pay the Registration Fee of £1 now made compulsory by Act of Parliament.

October. In the event of a Candidate not passing either of the B.Sc. or D.Sc. Examinations, the fee is not returned, but he may appear at one subsequent examination without paying an extra fee, and at any future examination on paying one-half of the fee.

ALEX. CRUM BROWN, *Convener.*

SECTION C.—DEGREES OF BACHELOR AND DOCTOR IN PUBLIC HEALTH.

1. The Candidate must be a Graduate in Medicine of a British University, or of such Colonial, Indian, or Foreign Universities as may be specially recognised by the University Court.

2. He must be matriculated for the year in which he appears for examination or graduation.

3. If the Candidate have not passed an *annus medicus* in the University of Edinburgh, he must, before presenting himself for examination, have attended in the University at least two courses of instruction, scientific or professional, bearing on the subjects of the Examinations.

4. There are two examinations for the Degree of Bachelor of Science in the Department of Public Health. A Candidate who has passed the first examination may proceed to the second at the next period fixed for this, or at any subsequent Examination.

5. The Candidate must produce evidence that, either during his medical studies or subsequently, he has attended a course of lectures in which instruction was given on Public Health, and that he has studied Analytical Chemistry practically for three months with a recognised teacher.

6. The examinations are written, oral, and practical, and are conducted by University Examiners selected by the University Court.

7. The subjects of the examinations for the Degree of Bachelor of Science in the Department of Public Health are as follows :—

FIRST EXAMINATION.

(1.) CHEMISTRY—

Analysis of Air, Detection of Gaseous Emanations and other Impurities in the Atmosphere.

Analysis of Waters for Domestic Use, and Determination of the Nature and Amount of their Mineral and Organic Constituents.

Detection, Chemical and Microscopical, of Adulterations in Articles of Food and Drink, and in Drugs.

Practical Examination, including at least two analytical researches.

(2.) PHYSICS—

Hydraulics and Hydrostatics, in reference to Water Supply, Drainage, and Sewerage.

Pneumatics, in reference to Warming and Ventilation.

Meteorology, and methods of making Meteorological Observations.
Mensuration and Mechanical Drawing, in reference to the Plans and Sections of Public and Private Buildings, Mines, Waterworks, and Sewers. The Candidate will be expected to make figured sketches from models, and to have such a knowledge of Mechanical Drawing as will enable him fully to understand Engineering Plans, Sections, and Elevations.

(3.) SANITARY LAW—

Knowledge of the leading Sanitary Acts of Parliament.

(4.) VITAL STATISTICS—

Knowledge of statistical methods and data in reference to Population, Births, Marriages, and Deaths.

EXAMINATION—*First Day*, Chemistry and Physics. *Second Day*, Sanitary Law and Vital Statistics.

An oral examination, and an examination in Practical Chemistry in the Laboratory will take place a few days after the written examination.

SECOND EXAMINATION.

(1.) MEDICINE—

Origin, Nature, and Propagation of Epidemic and Contagious Diseases.
Prevention of Contagion and Infection.
Endemic Diseases and the Geographical distribution of Disease.
Insalubrious Trades.
Overcrowding.
Epizootics, including pathological changes.

(2.) PRACTICAL SANITATION—

Duties of a Health Officer in reference to,—
Water Supply.
Insalubrious Dwellings and Public Buildings.
Removal and Disposal of Sewage and other Refuse and Impurities.
Cemeteries.
Nuisances from Manufactories, &c.
Bad or Insufficient Supplies of Food.
Outbreaks of Zymotic Diseases.
Quarantine.
Disinfectants and Deodorisers.
Construction of permanent and temporary Hospitals.

Candidates are required to lodge with the *Secretary of the Senatus* proof of their being eligible, and to pay the fee on or before 1st March.

DOCTOR OF SCIENCE.

A Bachelor of Science in the Department of Public Health may after the lapse of one year, proceed to the Degree of Doctor in the same department, on producing evidence that he has been engaged in Practical Sanitation since he received the Degree of Bachelor of Science, and on presenting a Thesis on some subject embraced in the Department of Public Health. Every such Thesis must be certified by the Candidate to have been composed by himself, and must be approved of by the Examiners.

The Candidate for the Degree of D.Sc. must lodge his Thesis with the Dean of the Medical Faculty on or before 31st January in the year in which he proposes to graduate. No Thesis will be approved which does not contain either the results of original observations on some subject embraced in the examination for B.Sc., or else a full digest and critical exposition of the opinions and researches of others on the subject selected by the candidate, accompanied by precise references to the publications quoted, so that due verification may be facilitated.

The fees for the Degrees in Science in the Department of Public Health shall be,—

For the first B.Sc. in Public Health Examination,	£5	5	0
For the second B.Sc. in Public Health Examination,	5	5	0
For the Degree of D.Sc. in Public Health, .	5	5	0
	£15	15	0

Every candidate is required before graduation to pay the Registration Fee of £1 now made compulsory by Act of Parliament.

The same regulation as to the non-return of fees applies to this Department as to the others.

The Degrees in Science are conferred at the Graduation Ceremonial in April.

The following are recommended as books to be studied in preparation for the above Examinations :—

Parkes, E., Practical Hygiene.
Wilson, George, Hand-Book of Hygiene.
Smith, Edw., Manual for Public Officers of Health.
,, ,, Hand-Book for Inspectors of Nuisances.
Michael, Corfield, and Wanklyn, Manual of Public Health, edited by E. Hart.
Eassie, Healthy Houses.
Latham, Baldwin, Sanitary Engineering.
Fleeming Jenkin, Healthy Houses.
Law, Henry, Rudiments of Civil Engineering.
Monro, Geo., The Public Health (Scotland) Act.
Buchan, Alex., Introductory Text-Book of Meteorology.

ALEX. CRUM BROWN
Convener.

SECTION D.—DEGREE OF DOCTOR IN MENTAL SCIENCE.

The Degree of Doctor of Science is open to Candidates highly prepared in the Mental Sciences.

1. The Candidate must be a Graduate, by examination, of a British or recognised Indian or Colonial University.

2. He must be matriculated for the year in which he appears for Examination or Graduation.

3. He must have attended for at least one academic year in this University, and during that year he must have taken at least two classes on the subjects embraced in the Examination.

4. The Candidate must, in evidence of literary and philosophical culture, send to the Dean of the Faculty of Arts *at least one month* before proceeding to Examination, a Thesis giving evidence of original research, on a subject in Mental Science previously approved by the Science Degrees Committee (Sections D and E). Mere compilations will not be accepted. The Candidate can be admitted to examination only after this Thesis has been found satisfactory by the Examiners.

5. The Candidate may then proceed to the Examination, which shall include Logic and Metaphysics, Moral Philosophy, and the History of Philosophy, both Metaphysical and Moral, in particular on any of the subjects embraced in the following Programme:—

Logic and Metaphysics.

(*a*) *Logic.*—The Province of Logic. Formal Logic—The Theory and details of Propositional and Syllogistic Forms, with their recent Developments, especially by Hamilton, De Morgan, and Boole. Fallacies. Verbal Logic—Definition—the Predicables—Nominalism and Realism. Material Logic—The different sorts of Evidence. Authority and Science. The methods of Scientific Induction. The philosophical questions involved in the Theory of Induction.

(*b*) *Metaphysics.*—Personality—Classification of the facts of Consciousness, with relative Psychological and Physiological Questions. Externality and External Perception—Matter—Space and Time—Causation and Power. The origin, nature, and limits of Human Knowledge—The Finite and the Infinite.

Moral Philosophy.

Moral Actions. The Moral Faculty. Desires and Emotions. The Will. Moral Obligation. The Existence and Attributes of God. The relation of Absolute Sovereignty to finite existence, and specially to human will. The Origin of Evil. The Immortality of the Soul. Practical Ethics, including the laws which regulate the formation of moral character, and the guidance of individual and social life.

History of Philosophy—Metaphysical.

The History of Logic—Formal and Inductive. A general knowledge of the History of Ancient and Modern Psychology and Metaphysics, Special Study of Plato, or Aristotle. Special study of Locke, Berkeley, Hume, and Kant, with the subsequent History of Agnosticism, Gnosticism, and the Philosophy of Faith.

History of Philosophy—Moral.

The relation of the pre-Socratic Philosophy to Moral Philosophy. The Socratic theory, as in the *Memorabilia*. The Platonic theory, as in the *Republic*. The Aristotelian, Stoic, and Epicurean theories. The theories of Hobbes, Spinoza, Cudworth, Price, Hume, and Kant, with the later developments of Intuitional and Utilitarian Ethics.

6. The Examinations will be held annually in *April*. Candidates may be tested both orally and by writing.

7. Those who have taken the Degree of Master of Arts in this University with First-Class Honours in the Department of Mental Philosophy, may obtain the Degree of Doctor in Mental Science when a period of not less than three years shall have elapsed after they have obtained such Honours, after submitting a sufficient Thesis, on a subject approved by the Science Degrees Committee (D and E), and on giving such other evidence of increased proficiency in the Mental Sciences as may be satisfactory to the Senatus.

8. The Fee for the Degree of Doctor in Mental Science is £7, 7s.* The Fee must be paid to the *Secretary of the Senatus* at least ten days before the date of Examination, (or in the case of Candidates admitted under Rule 7, at least ten days before Graduation), when the Diploma and Certificates of the Candidate must be shown to the Dean of the Faculty of Arts. In the event of the Candidate not passing, the fee is not returned, but he may appear at one subsequent Examination without paying an extra fee, and at any future Examination on paying one-half of the fee.

A. C. FRASER.

Dean of Faculty of Arts, Convener for Sections D and E.

SECTION E.—DEGREE OF DOCTOR OF SCIENCE IN PHILOLOGY.

The Degree of Doctor of Science is open to Candidates highly proficient in Philology.

1. The Candidate must be a Graduate, by examination, of a British or recognised Indian or Colonial University.

2. He must be matriculated for the year in which he appears for Examination or Graduation.

* Every candidate is required before graduation to pay the Registration Fee of £1 now made compulsory by Act of Parliament.

3. He must have attended for at least one academic year at this University, and during that year he must have taken at least two classes on the subjects embraced in the Examination.

4. The Candidate must send to the Dean of the Faculty of Arts, *at least one month* before proceeding to Examination, a Thesis, giving evidence of Original Research, on some point of Philological or Archæological Research, on a subject previously approved by the Science Degrees Committee (Sections D and E). Mere compilations will not be accepted. The Candidate can be admitted to examination only after this Thesis has been found satisfactory by the Examiners.

5. The Candidate may then offer himself for Examination in any one of the following branches :—

1. The Latin and Greek Languages.
2. The Semitic Languages.

   It is expected that Candidates for a Degree in Philology, in this branch, besides being critically acquainted with the Book of Job and with the Psalms in Hebrew and the Gospels and Acts in Syriac, should know the first four Surat or Chapters of the Koran, and be capable of turning sentences of English into Hebrew, Syriac, and Arabic—supplying, at the same time, the proper vowels and diacritical marks. Some knowledge of Arabic prosody will also be expected.
3. The Sanskrit Language and Comparative Philology.
   (*a.*) Sanskrit Language and Literature. Translation of passages from current Sanskrit Authors into English, and from English into Sanskrit.
   (*b.*) Comparative Philology of the Indo-European Languages, Acquaintance with the principles of the Science, as laid down in the Comparative Grammar of Bopp, Schleicher's "Compendium," and Müller's and Whitney's "Lectures."
   (*c.*) Philosophy of Language. Candidates must shew some degree of familiarity with the works of Curtius' "Grundzüge;" Peile's "Introduction;" Horne Tooke's "Diversions of Purley;" Lersch, "Sprach-philosophie der Alten;" Heyse, "System der Sprachwissenschaft;" Schœmann, "Die Lehre von den Redetheilen;" Steinthal, "Der Ursprung der Sprache."

6. Candidates for the Degree of Doctor of Science in Classical Philology will be tested in respect of their general Scholarship by translation from Latin and Greek Authors, and by composition in Latin and Greek Prose. They will further be required to profess a critical knowledge of some special Department or Epoch of Classical Literature, or of some three or four of the more difficult and important Classical Writers.

7. The Examinations will be held annually in *April.* Candidates may be tested both orally and by writing.

8. Those who have taken the degree of Master of Arts in this University, with First-Class Honours in the Department of Classical Litera-

ture, may obtain the Degree of Doctor of Science in Philology, when a period of not less than three years shall have elapsed after they have obtained such Honours, after submitting a sufficient Thesis on a subject approved by the Science Degrees Committee (Sections D and E), and by such other evidence of increased proficiency in Philological Research as may be satisfactory to the Senatus.

9. The Fee for the Degree of Doctor of Science in Philology is £7, 7s.* The Fee must be paid to the *Secretary of the Senatus* at least ten days before the date of Examination, (or in the case of Candidates admitted under Rule 7, at least ten days before Graduation,) when the Diploma and Certificates must be shown to the Dean of the Faculty of Arts. The same regulation as to the non-return of fees applies with reference to this Section as to Section D.

A. C. FRASER,
Dean of Faculty of Arts, Convener for Sections D and E.

GRADUATES IN SCIENCE.

1st August 1881.

THE DEGREE OF B.Sc.,

(*In the Department of Public Health.*)

Harold Knowles Bean, England, M.B., C.M.

(*In the Department of Physical Experimental Sciences.*)

Arthur Pillans Laurie, Scotland.

26th November 1881.

A. J. Stanton.

(*In the Department of Natural Sciences.*

1st August 1881.

Theodore Stacey Wilson, England.

26th November 1881.

Francis Grant Ogilvie.

J. Theodore Richards.

21st April 1882.

THE DEGREE OF D.Sc.,

(In the Department of Mental Philosophy.)

James M. Hodgson, M.A.

(In the Department of Public Health.)

Robert Charnley Smith, M.D., B.Sc.

THE DEGREE OF B.Sc.

(In the Department of Natural Sciences.)

Frederick William Reid, M.B.

* Every candidate is required before graduation to pay the Registration Fee of £1 now made compulsory by Act of Parliament.

(In the Department of Physical Experimental Sciences.)
William Edward Home.
Cecil Reddie.
Charles H. Stewart.
(In the Department of Engineering.)
H. M. Cadell.
A. C. Renton.
(In the Department of Public Health.)
D. M. Cassidy, M.D.
Robert Moodie, M.D.
A. C. Munro, M.B.
Henry Welch, M.B.
C. H. Willey, M.B.

SCIENCE FELLOWSHIP AND SCHOLARSHIPS.

The following Fellowship and Scholarships are open to Graduates in Science :—

1. The *Falconer Memorial Fellowship*, in Palæontology and Geology, of the annual value of about £100, tenable for two years or more, according to circumstance (*See* under Fellowships, &c.), is open to Graduates in Science or Medicine of this University of not more than three years' standing at the date of the Examination. The next may be held in June 1884.

2. The *Baxter Physical Science Scholarship*, tenable for two years, is awarded to the most eminent of the Bachelors of Science who have passed their Examinations in the Physical Sciences, including Experimental Philosophy and Chemistry, either in the year preceding a vacancy or in the year in which a vacancy occurs. The Scholarship is held subject to the condition that the holder shall have taken the Degree of Doctor of Science in the first year of his tenure of it. Annual value, £60.

3. The *Baxter Natural Science Scholarship*, tenable for two years, is awarded to the most eminent of the Bachelors of Science who have passed their Examinations in the department of Natural Sciences, including Botany, Zoology, Physiology, and Geology, either in the vear preceding a vacancy or in the year in which a vacancy occurs. Annual value, £60. The Scholarship is held subject to the condition that the holder shall have taken the Degree of Doctor of Science in the first year of his tenure of it.

4. The *Vans Dunlop Scholarship in Chemistry and Chemical Pharmacy*, value about £100, tenable for three years.

5. The *Vans Dunlop Scholarship in Natural History*, value about £100, tenable for three years.

6. The *Vans Dunlop Scholarship in Natural Philosophy*, value about £100, tenable for three years.

NOTICE AS TO SCIENCE EXAMINATIONS FOR 1882-83.

Sections A. and B.

Preliminary Examinations will take place on Tuesday, Wednesday, Thursday, and Friday, 3th, 4th, 5th, and 6th, October 1882; and on Tuesday, Wednesday, Thursday, and Friday, 13th, 14th, 15th, and 16th March 1882.

Examination on Tuesdays.—Arithmetic, 9 to 11 A.M.; Mathematics (Euclid, Algebra), 11.30 A.M. to 1.30 P.M.; Higher Mathematics, 2 to 4 P.M.

Examination on Wednesdays.—English, 9 to 11 A.M.; Natural Philosophy, 11.30 A.M. to 1.30 P.M.; Mechanics, 2 to 4 P.M.

Examination on Thursdays.—Latin, 9 to 11 A.M.; Logic, 11.30 A.M. to 1.30 P.M.; Moral Philosophy, 2 to 4 P.M.

Examination on Fridays.—Greek, 9 to 11 A.M.; French, 11.30 A.M. to 1.30 P.M.; German, 2 to 4 P.M.

Subjects of Examination from October 1882, to March 1884, both inclusive.

1. *English.*—The Examination will include:—(1.) Writing a passage of English from dictation; (2.) English Composition, with the correction of sentences of bad English; (3.) Questions in English Grammar, with analysis of sentences, and the derivation and definition of some common English words; (4.) General Questions in History and Geography.
2. *Latin.*—For October 1882 and March 1883, Livy, Book V. For October 1883 and March 1884, Livy, Book XXI. An easy passage from a Latin prose author, and a single passage of English (translated from a Latin author) to be re-translated into Latin—the more difficult Latin words being given.
3. *Arithmetic.*—The Common Rules, including Vulgar and Decimal Fractions.
4. *Elements of Mathematics.*—Geometry, Euclid, Books I., II., and III., or Wilson's *Elementary Geometry*, Books I., II., III. The Elementary Rules of Algebra, including Simple Equations. A knowledge of Geometry alone or of Algebra alone will not be sufficient.
5. *Elements of Dynamics* (*Mechanics*).—Elementary Kinematics, Statics, Kinetics, and Hydrostatics. Text Book: Blaikie's *Elements of Dynamics.*
6. *Greek.*—For October 1882 and March 1883, Xenoph., *Anabasis*, Bk. IV. For October 1883 and March 1884, Plato, *Apologia Socratis.*

7. *French.*—For October 1882 and March 1883, Voltaire, *Siècle de Louis XIV.*, chap. xviii.-xxiii. For October 1883 and March 1884, Souvestre, *Un Philosophe sous les toits*, I.-IX.
8. *German.*—For October 1882 and March 1883, Lessing's *Minna von Barnhelm.* For October 1883 and March 1884, Chamisso, *Peter Schlemihl's wundersame Geschichte.*
9. *Higher Mathematics.*—Geometry, Euclid, Books I.-IV., Book VI., and the Propositions of Book XI., usually given in the modern editions, or Wilson's *Elementary Geometry*, Books I II., III., V., and Wilson's *Solid Geometry and Conic Sections*, Book IV., Section I.—Algebra, Elementary Trigonometry, and Conic Sections. Text Book for Conic Sections, Wilson's *Solid Geometry and Conic Sections*, Book V
10. *Natural Philosophy.* — Text-Book recommended — Balfour Stewart's *Elementary Physics.*
11. *Logic.*—Either Jevons's *Elementary Lessons in Logic*, or Professor Fraser's *Selections from Berkeley*, 2nd Ed. pp. 143-249.
12. *Moral Philosophy.*—From October 1882 until March 1884 (inclustve), Butler's *Ethical Theory*, *Sermons* 1, 2, 3, and Professor Calderwood's *Handbook*, pp. 1-43, 123-152, 165-202.

In answering the questions in Arithmetic, Mathematics, and Dynamics (Mechanics), the steps of the reasoning, as well as the final result, must be exhibited.

As regards Latin, Greek, French, and German, mere translation is not sufficient. There must be translation of an English passage into each of the languages taken up by the Candidates.

For further particulars as to the Examination in these subjects *see* Medical Preliminary Examination in Arts, in CALENDAR.

MATHEMATICAL, PHYSICAL, AND NATURAL SCIENCES.

First B.Sc. Examination in Mathematics and Natural Philosophy, will take place in October and April, at the same time as the examination in Arts on these subjects, viz., 17th, 18th, and 19th October 1882, and 9th, 10th, and 11th April 1882.

First B.Sc. Examination in Chemistry, Botany, and Zoology, will take place in April and October, at the same time as the First Medical Professional Examination, viz., 12th, 13th, and 14th October 1882, and 2d, 3d, and 4th April 1883.

Second B.Sc. Examinations in the Mathematical Sciences and in the Physical Experimental Sciences (except in Chemistry)

will take place at the same time as the Examination for the Degree of M.A. with Honours; and the Examination in the Natural Sciences and in Chemistry will take place at the same time as the First Medical Professional Examination.

ENGINEERING.

First B.Sc. Examination. The Examination in Chemistry on the 12th October 1882, and 2d April 1883, at 11 o'clock.

In Practical Chemistry on the 14th October 1882 and 4th April 1883.

In Mathematics and Natural Philosophy, on 17th, 18th, and 19th October 1882, and 9th, 10th, and 11th April 1883.

Second B.Sc. Examination. The Examination in Engineering and Drawing will take place on 12th and 13th October 1882, and 2d and 3d April 1883.

In Mathematics applied to Mechanics, on 19th October 1882, and 11th April 1883.

Examinations for D.Sc. in Sections A, B, and C, will be held in April and October. Candidates must present their Theses at least one month before the date of the Examination.

Section C.—PUBLIC HEALTH.

First B.Sc. Examination, 2d April 1883. Chemistry, 11 to 1; Physics, 2 to 5.

3d April 1883. Sanitary Law and Vital Statistics, 11 to 1.

4th April 1883. Practical Examination in Chemistry, 10 to 4.

Second B.Sc. Examination, 9th April 1883. Medicine, 11 to 1; Practical Sanitation, 2 to 4.

Sections D and E.

D.Sc. IN MENTAL SCIENCE AND PHILOLOGY.

Friday 13th April 1883, at 9 o'clock, is fixed for the commencement of the Examinations of Candidates for the Degree of Doctor in Mental Science and of Doctor in Philology.

Candidates must present their Theses to the Dean of the Faculty of Arts at least one month before the date of the

Examination. They must send their names and addresses to the "*Secretary of the Senatus, University, Edinburgh,*" and arrange with the Science Degrees Committee, through the Dean of the Faculty of Arts, the subjects of their Theses so as to admit of the Theses being ready in due time.

ANNUAL CEREMONIALS FOR GRADUATION AND ACADEMIC COSTUME.*

The Public Ceremonial of Graduation in Arts, Law, and Theology is held annually in April.

Degrees in Medicine are publicly conferred on the first of August in each year.

Graduates must appear on these occasions in the Academical Costume proper to their Degree.

The ordinary form of Gowns worn by Graduates of the University is the same in all the Faculties—viz., black silk or stuff, with long sleeves. The distinctive part of the costume is in the *Hood* appropriated to each Faculty. These Hoods are as follow:

LL.D.—Black *cloth*, lined with *blue* silk.
LL.B.—Black *silk*, lined also with *blue* silk, bordered with white fur.
D.D.—Black *cloth*, lined with *purple* silk.
B.D.—Black *silk*, lined also with *purple* silk, bordered with white fur.
M.D.—Black *cloth*, lined with *crimson* silk.
M.B. and C.M.—Black *silk*, lined with *crimson* silk, bordered with white fur.
Sc.D.—Black *cloth*, lined with *green* silk.
Sc.B.—Black *silk*, lined with *green* silk, bordered with white fur.
M.A.—Black *silk*, lined with *white* silk.

FULL DRESS FOR THE DOCTORS OF LAW, MEDICINE, AND SCIENCE.

Gown of superfine Scarlet Cloth, loose sleeves, the cape and facings down the front covered with, and the sleeves lined with rich silk of the colour proper to the Degree. Cap of black silk velvet after the John Knox fashion.

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* The relative precedence of each Faculty is as follows:—1. Divinity; 2. Law. 3. Medicine; 4. Arts. The Deans take precedence in their respective Faculties followed by the Members of their faculties in the order of dates of their Commission.

Arts Entrance Examinations,

October 1881.

The following have passed the Entrance Examination for a Curriculum of Three Sessions :—

Robert O. Adamson, Edinburgh Academy; W. A. Alexander, George Watson's College School ; David Anderson, Royal High School ; W. Barclay Brown, Ayr Academy ; W. C. Barlow, George Watson's College School ; Robert Bell, George Watson's College School ; C. Bentinck, George Watson's College School ; V. V. Branford, Daniel Stewart's Institution ; A. H. Briggs Constable, Dollar Institution ; D. M. Burns, Merchiston Castle School ; William Caldwell, Private ; W. Campbell, Dumfries Academy : T. V. Campbell, Londonderry Academy Institution ; D. S. Capper, Royal High School ; W. Westwood Chalmers, Perth Academy ; R. T. Colvin, George Watson's College School ; W. Cowan, Perth Academy ; A. E. Claxton, Daniel Stewart's Institution ; James Currie, Morebattle Public School ; John Davidson, Aberdeen South Parish School; Andrew Elliot, Royal High School ; Douglas Ferrier, High School, Brechin ; J. W. Forbes, George Watson's College School ; Carmont Gallacher, Ayr Academy ; James Goodwillie, George Watson's College School ; Wm. Gray, George Watson's College School ; W. S. Haldane, Edinburgh Academy ; H. J. Hall, Eastbourne College, Sussex ; Thos. R. Henderson, Dumfries Academy ; Hope W. Hogg, Dollar Institution ; Robert Latta, Royal High School ; George Lawrie, Church of Scotland Training College, Edinburgh ; W. D. Lawrie, Edinburgh Academy; W. D. Learmount, George Watson's College School ; John Liddell, Daniel Stewart's Institution ; James E. Lockhart Mure, Ayr Academy ; W. C. Lockhart Mure, Ayr Academy ; J. Macbean, Royal High School ; A. B. MacCallum, Ayr Academy ; John Mackenzie, Private ; P. J. Maclagan, Berwick Grammar School ; Charles Macleod, Edinburgh Institution ; Duncan Macmichael, Royal High School ; Robert B. Martin, Edinburgh Collegiate School ; Fr. James Moss, Royal High School ; Charles Murray, Private ; H. B. Pickard, Private ; W. Rankine, Private ; Oswald D. Robson, George Watson's College School ; J. D. Rose, George Watson's College School ; G. Gregory Smith, George Watson's College School ; R. E. M. Smith, Edinburgh Academy ; Alexander Still, George Watson's College School ; Alexander Taylor, George Watson's College School ; W. J. Coventry Tennant, Church of Scot-

land Training College, Edinburgh; David Tweedie, George Watson's College School; P. S. Warden; J. J. Waugh, Royal High School; James Wilkie, Perth Academy; Charles Wilson, Royal High School; J. A. Wilson, Fettes College.

The following have passed in Latin only :—

J. E. M. Archibald, J. Calderwood, J. J. M. Cowper, D. Davidson, G. W. Reed.

The following have passed in Greek only :—

P. C. Durward, E. H. Duncan, J. Gordon, W. Hood, D. Haskie, G. Hutton, H. A. Inglis, W. Jack, J. M'Bean, F. Rae, R. Small, G. Wade, A. Waters.

The following have passed the Entrance Examination in Mathematics :—

W. A. J. Alexander, George Watson's College; D. Anderson, Royal High School; J. E. Archibald, E. C. Training College; W. C. Barlow, George Watson's College; R. Bell. George Watson's College; V. V. Branford, Daniel Stewart's College; J. Brown, Muir Street Public School, Larkhall; W. B. Brown, Ayr Academy; T. V. Campbell, Londonderry Academical Institution; W. D. Campbell, Dumfries Academy; D. S. Capper, Royal High School; A. H. B. Constable, Dollar Institution; W. Cowan, Perth Academy; J. Davidson, Aberdeen South Parish School; A. Elliot, Royal High School; C. Gallacher, Ayr Academy; J. Goodwillie, George Watson's College; D. L. Guild, Private Study; W. S. Haldane, Edinburgh Academy; T. R. Henderson, Dumfries Academy; H. W. Hogg, Dollar Institution; R. Latta, Royal High School; G. Lawrie, E. C. Training College; W. D. Learmount, George Watson's College; George Lisle; J. Liddell, Daniel Stewart's College; J. MacBean, Royal High School; A. B. MacCallum, Ayr Academy; J. U. M'Gregor, George Watson's College; J. Mackenzie, Private Study; D. Macmichael, Royal High School; H. A. Moss, Royal High School; J. E. L. Mure, Ayr Academy; W. C. L. Mure, Ayr Academy; H. B. Pickard, Private Study; C. D. Robson, George Watson's College; J. D. Rose, George Watson's College; A. S. Smith, George Watson's College; G. Gregory Smith, George Watson's College; A. Still, George Watson's College; A. Taylor, George Watson's College; D. Tweedie, George Watson's College; G. Wade, Royal High School; P. S. Warden, Daniel Stewart's College; C. Wilson, Royal High School; J. A. Wilson, Fettes College.

Competitive Examinations

FOR BURSARIES.

HONOUR LIST.

October 1881.

The following candidates, entitled to distinction, are arranged in the order of merit :—

I. *Students of First Session in Arts.*

1.	PICKARD, H. B., . .	*Private.*
2.	MACMICHAEL, D., . .	*Royal High School.*
3.	BROWN, W. B., . .	*Ayr Academy.*
4.	MURE, LOCKHART, J. E.,	*Ayr Academy.*
5.	STILL, ALEX., . .	*George Watson's College School.*
6.	HENDERSON, T., . .	*Dumfries Academy.*
7.	HOGG, H. W., . .	*Dollar Academy.*
8.	TWEEDIE, D., . .	*George Watson's College School.*
9.	CAPPER, D. S., . .	*Royal High School.*
10.	BARLOW, W. C., . .	*George Watson's College School.*
11.	LIDDELL, J., . .	*Daniel Stewart's Institution.*
	WARDEN, P. S., . .	*Daniel Stewart's Institution.*
13.	LEARMOUNT, W. D., .	*George Watson's College School.*
14.	WILSON, CHAS., . .	*Royal High School.*
15.	MACCALLUM, A. B., .	*Ayr Academy.*
16.	CONSTABLE, A. H. B.,	*Dollar Institution.*
	ELLIOT, A., . .	*Royal High School.*
18.	DAVIDSON, JOHN, . .	*Aberdeen Free Church School.*
19.	BRANFORD, V. V., . .	*Daniel Stewart's Institution.*
20.	RANKINE, W., . .	*Private.*
21.	SMITH, G. G., . .	*George Watson's College School.*
22.	COWAN, W., . . .	*Perth Academy.*
23.	LATTA, ROBERT, . .	*Royal High School.*
24.	ANDERSON, DAVID, .	*Royal High School.*
25.	CAMPBELL, T. W., .	*Londonderry Academy.*
26.	MURE, LOCKHART, .	*Ayr Academy.*
27.	ROSE, D., , . .	*George Watson's College School.*
28.	CAMPBELL, W. W. D.,	*Dumfries Academy.*
	WILSON, J. A., . .	*Fettes College.*

30. MACKENZIE, JOHN, . . *Private.*
31. MACLAGAN, P. J., . . *Berwick Grammar School.*
32. BELL, ROB., ... *George Watson's College School.*
33. WAUGH, J. J., . . *Royal High School.*

II. *Students of Second Session in Arts.*

1. TOD, DANIEL.
2. DOUGAL, DAVID.
3. DOWNIE, JOHN.
4. GEOGHEGAN, A.
5. CAMPBELL, A.
6. MILL, J.
7. M'ARTHUR, R. C. W.
8. JAMIESON, A. L. P.
9. CLYDE, J. A.
10. CURRIE, W. S.

III. *Students of Third Session in Arts.*

1. ROWAND, ANDREW.
2. BARLOW, C. W. C.
3. STEWART, G. W.
4. FLEMING, J. D.
5. DONALD, A. W.

Class Prize Lists.

SESSION 1881-1882.

FACULTY OF ARTS.

I.—HUMANITY.

SUMMER SESSION, 1881.—SENIOR TUTORIAL CLASS.

PRIZEMEN.—1. Alexander Geoghegan, and 2. James Mill—equal; 3. John Robertson; 4. Daniel Tod; 5. Wm. S. Currie; 6. Wm. F. Bell; 7. Wm. Langwill.

CERTIFICATES OF MERIT.—8. Alfred Coutts; 9. Wm. Cranstoun; 10. James Adams; 11. Alex. Thomson; 12. Wm. Burnett; 13. James Macgregor; 14. John Martin; 15. W. R. W. Gardner.

LATIN PROSE COMPOSITION.—1. Daniel Tod; 2. John Robertson.

PRIZES FOR SPECIAL EXAMINATION IN ROMAN HISTORY.—1. Alfred Coutts; 2. William Graham.

PRIZES FOR PRIVATE READING.—1. Alex. Geoghegan; 2. George H. Young.

JUNIOR CLASS.

PRIZEMEN.—1. M. Macleod; 2. H. J. Muncaster; 3. Alex. S. Bishop.

CERTIFICATES OF MERIT.—4. James Huskie; 5. John Robertson; 6. George Waugh; 7. Andrew Gray; 8. John Macgregor.

LATIN PROSE COMPOSITION.—H. J. Muncaster.

W. PETERSON.
Assistant to the Professor of Humanity.

WINTER SESSION, 1881-82.—JUNIOR CLASS.

1 and 2. Douglas Ferrier, Brechin, and Alexander Still, Peterhead—equal; 3. J. E. Lockhart Mure, Kirkcudbrightshire *(Class Medals)*; 4 and 5. Andrew Elliot, Edinburgh, and W. D. Learmount, South Shields—equal; 6. Wm. Cowan, Perth; 7. James A. Ross, Rossshire; 8. James Currie, Roxburghshire; 9. John Davidson, Aberdeen; 10. Thomas Gibson, Perth; 11. Charles D. Bentick, Kingussie; 12. John Liddell, Edinburgh; 13. William Caldwell, Edinburgh; 14. W. D. Campbell, Lockerbie; 15. James G. Gow, Crieff.

CERTIFICATES OF MERIT.—16 George Donald, Stonehaven ; 17. Alexander F. Annand, Aberdeenshire ; 18. William Cranston, Penicuik ; 19. Victor V. Branford, Northamptonshire ; 20. Wm. Gibson, Perth ; 21. Alexander Mactaggart, Argyleshire ; 22. D. S. Calderwood, Perth ; 23. Alexander Will, Arbroath ; 24. James S. Drummond, Haddingtonshire ; 25. George W. Reid, Orkney ; 26. Robert A. Robertson, Perthshire ; 27. R. Bell, Edinburgh ; 28. Ralph Hardie, Winchburgh ; 29. Alex. Waters, Wick ; 30. James Dick, Fife ; 31. Alex. Wright, Rothesay ; 32. G. Gregory Smith, Edinburgh ; 33. W. G. Douglas, Lochmaben ; 34. R. S. Macdougall, Edinburgh ; 35. William M'Gowan, Wigtownshire ; 36. John M'Bean, Argyleshire ; 37. Wm. Jack, Edinburgh ; 38. R. H. Watson, Edinburgh ; 39. Donald Stewart, Ross-shire.

LATIN PROSE.—1. Douglas Ferrier ; 2. J. E. L Mure ; 3. Wm. Cowan.

HISTORY.—J. A. Ross. *Honourable Mention.*—D. Ferrier.

SENIOR CLASS.

1. John Downie, Falkland ; 2. Alexander Geoghegan, Edinburgh ; 3. James Mill, Edinburgh ; 4. Daniel Tod, Burntisland (*Class Medals*) ; 5. J. J. Roberton, Stirlingshire ; 6. William Currie, Edinburgh ; 7. R. C. W. Macarthur, Edinburgh ; 8. W. B. Brown, Ayrshire ; 9. John Mackenzie, Inverness ; 10. W. Mitchell, Elgin ; 11. Murdo Macleod, Sutherlandshire ; 12 and 13. George A. Douglas, Forres, and John Robertson, Perth—equal ; 14. Francis Jamieson, Shetland ; 15. William Rankine, Aberdeenshire.

CERTIFICATES OF MERIT. — 16. D. Tweedie, Berwickshire ; 17. Alfred Coutts, Leith ; 18 and 19. Archibald B. H. Constable, Fifeshire, and Robert H. Watson, Falkirk—equal ; 20 and 21. Duncan Macmichael, Argyleshire, and Henry J. Hall, Eastbourne —equal ; 22. A. L. P. Jamieson, Forfar ; 23, 24, 25, and 26. P. J. Maclagan, Berwick ; David Anderson, Caithness ; J. M. Archibald, Dumfriesshire, and D. S. Cairns, Kelso—equal ; 27. James Macandrew, Leith ; 28, 29, and 30. D. S. Capper, London ; John Charleson, Forres, and D. A. Maclaren, Perthshire—equal ; 31 and 32. W. C. Barlow, London, and James Taylor, Fife—equal ; 33. W. F. Bell, Edinburgh ; 34. J. D. Rose, Argyleshire ; 35. James Russell, Leith ; 36. Jas. Adams, Bo'ness ; 37 and 38. H. M. Burns, Edinburgh, Thos. R. Henderson, Dumfries—equal ; 39. Hope W. Hogg, Egypt ; 40. Arthur F. Taylor, Edinburgh ; 41. Robert Latta, Edinburgh ; and 42. J. J. Waugh, Newcastle.

LATIN PROSE.—1. A. Geoghegan ; 2. D. Tod ; 3 and 4. James Mill and John Robertson—equal.

LATIN VERSE.—D. Tod. *Honourable Mention.*—A. Geoghegan.

History.—John Downie. *Honourable Mention.*—A. Geoghegan and James Mill—equal.

Summer Reading.—J. Downie.

THIRD CLASS.

1. George Macdonald, Ayr (*Class-Medal*); 2. John Gibson, Edinburgh; 3. E. Monteith Macphail.

Certificates of Merit.—4. Andrew Wm. Donald, Perthshire; Charles Murray, Cape of Good Hope; 6 and 7. George Brown, Edinburgh, and Robert L. Galloway, Edinburgh—equal.

Summer Readings for Students entering the Senior Humanity in October 1882.—Horace *Odes* III., IV., *Ars Poetica;* Tacitus, *Histories* I., II.

W. Y. SELLAR, *Professor.*

II.—GREEK.

Summer Session, 1881.—senior tutorial class.

Prizes for General Excellence.—1. James Mill, Edinburgh; 2. John Robertson, Perth; 3. Daniel Tod, Burntisland; 4. Alexander Geoghegan, Edinburgh; 5. W. F. Bell, Edinburgh; 6. Alexander Thomson, Edinburgh; 7. G. H. Young, Dalkeith.

Certificates of Merit.—1. Alfred Coutts, Leith; 2. James Adams. Bo'ness; 3. William Burnett, Edinburgh; 4. James M'Gibbon, Edinburgh; 5. James L. Bain, Pitlochry.

Prizes for Greek Prose Composition.—1. John Robertson; 2. James Mill; 3. Daniel Tod.

Prizes for Best Series of Translation into Idiomatic English, —1. James Mill; 2. Daniel Tod and R. H. Watson, Falkirk—equal.

A Special Prize was awarded to W. Currie, who was present only at the first Examination.

JUNIOR CLASS.

Prizes for General Excellence.—1. Andrew Gray, Dalkeith; 2. Anthony Bell, Edinburgh.

Certificate of Merit.—George Waugh, Stirlingshire.

GEORGE B. GARDINER,
Assistant to the Professor of Greek.

WINTER SESSION, 1881-82.

JUNIOR CLASS.

1. W. D. Learmount, South Shields (*Medal*) ; 2 and 3. A. Still, Peterhead (*Medal*), and J. E. Lockhart Mure, Castle-Douglas (*Medal*) —equal ; 4. J. D. Rose, Inveraray ; 5. J. Davidson, Aberdeen ; 6. A. Waters, Wick ; 7. James Currie, Morebattle ; 8. W. Cowan, Perth ; 9. D. Ferrier, Brechin ; 10. A. Elliot, Edinburgh.

CERTIFICATES OF DISTINCTION.—11. J. Liddell, Edinburgh ; 12. C. D. Bentick, Kingussie ; 13. W. D. Campbell, Lockerbie ; 14. W. Bruce, Aberdeen ; 15 and 16. T. Gibson, Ulster, and A. Will, Arbroath—equal; 17. D. S. Brown, Edinburgh ; 18. W. Caldwell, Edinburgh ; 19. V. V. Branford, Northamptonshire ; 20. W. Jack, Edinburgh ; 21. J. A. Ross, Tain.

PRIVATE READINGS.—J. E. Lockhart-Mure.

TUTORIAL PRIZES.

GREEK PROSE COMPOSITION.—1. W. D. Learmount ; 2. J. E. Lockhart-Mure ; 3. J. Davidson.

GREEK GRAMMAR.—1. J. E. Lockhart Mure ; 2 and 3. J. Davidson and R. Bell—equal.

GREEK HISTORY.—1. A. Still and E. H. Duncan, Dingwall—equal.

N.B.—*Summer Readings for Students entering the Senior Class for Session* 1882-3.—Homer—*Iliad*, 13-24.

SENIOR CLASS.

1. D. Tod, Burntisland *(Scott-Dunbar Prize and Medal)*; 2. J. Downie, Falkland *(Medal)*; 3. J. Mill, Arbroath ; 4. A. Geoghegan, Edinburgh ; 5. J. Robertson, Perth ; 6. W. Currie, Edinburgh, and W. Mitchell, Elgin—equal ; 8. Ivor Roberton, Denny ; 9. G. A. Douglas, Forres, and A. L. P. Jamieson, Forfar—equal.

CERTIFICATES OF DISTINCTION.—11. H. W. Hogg, Cairo ; 12. A. Paterson, Roslin ; 13. R. H. Watson, Falkirk ; 14. R. C. W. Macarthur, Sussex ; 15. W. F. Bell, Edinburgh ; 16. F. R. Jamieson, Shetland ; 17. P. J. Maclagan ; 18. D. Maclaren.

PRIVATE READINGS.—*First Series.*—J. Downie. *Second Series.*—W. B. Brown, Dalry.

SPECIAL PRIZE FOR PHILOLOGY.—A. Geoghegan. *Honourable Mention.*—A. Paterson.

GREEK HISTORY.—J. Downie.

SUMMER READINGS.—J. Downie.

TUTORIAL PRIZES.

GREEK COMPOSITION.—1. J. Robertson ; 2. D. Tod ; 3. A. Geoghegan.

PRIZES FOR ORIGINAL ENGLISH VERSE, open to both Classes—1.

G. Gregory Smith, Edinburgh; (*Junior Class*) 2. John Chalmers, Haddingtonshire, and R. W. Hay, Australia—equal.

N.B.—*Summer Readings for students entering the Third Class for Session* 1882-3.—Sophocles.

JOHN S. BLACKIE, *Professor.*

III.—MATHEMATICS.

Summer Session, 1881.—Advanced tutorial class.

Lectures were given in this Class on Determinants, Theory of Equations, and the Elements of the Differential and Integral Calculus; but no Competitive Examinations were held.

Senior class.

Prizemen.—1. James W. Macdonald, Perthshire; 2. John Cook, Ayrshire; 3. George W. Stewart, Edinburgh; 4. Archibald Fleming, Perth; 5. A. C. Renton, Berwickshire.

Certificates of Merit.—1. H. M'Kean, Edinburgh; 2. James Smith, Dumfriesshire; 3. William Cromb, Edinburgh; 4. Thomas C. Meikle, Edinburgh.

Junior class.

Prizeman.—David Dougal, Linlithgow.

Certificates of Merit.—1. H. E. Hill, Dumfries; 2. Seymour Stookes, Edinburgh; 3. R. S. Millar, Clackmannan.

WILLIAM THOMSON,
Assistant to the Professor of Mathematics.

Winter Session, 1881-82.—Junior class.

Prizemen.—1. D. Dougal, Linlithgow; 2. W. Crawford, Dumfries, and G. W. Stewart, Midlothian—equal; 4 W. Burnett, Edinburgh, and J. Gray, Aberdeen—equal (*Medals*); 6. A. Forbes, Banffshire, and J. B. Johnston, Kincardine—equal; 8. A. Grieve, Airdrie; 9. J. Wilson, Edinburgh; 10. R. Muir, Roxburghshire, and J. Rennie, Aberdeen—equal; 12. A. Anderson, East Lothian; 13. J. G. Clark, Kirkcudbrightshire, A. L. P. Jamieson, Forfarshire, and A. C. Tait, Kirkcudbright—equal; 16. D. Keir, Fifeshire; 17. J. W. Caithness, Kincardine, and J. W. Tait, Midlothian—equal; 19. W. Robertson, Perthshire, D. Tweedie, Berwickshire, and P. S. Warden, Stirling—equal; 22, J. Watson, Aberdeen; 23. P. I. Weir, Midlothian; 24. J. A. Clapperton, Edinburgh, J. Mitchell, Fifeshire, and J. Ritchie, Berwick—equal; 27. W. C. Barlow, Hampshire, and H. M. Burns, Edinburgh—equal.

Certificates of Distinction (Alphabetical).—T. Amos, Haddington; J. C. Anderson, Aberdeen; J. Archibald, Edinburgh;

A. Barret, Edinburgh; R. Bird, Dysart; T. V. Campbell, Londonderry; W. W. Chalmers, Perthshire; A. Coutts, Edinburgh; D. Dawson, Forfarshire; J. Downie, Fife; M. B. Duff, Edinburgh; D. A. Farquhar, Aberdeenshire; J. Gibson, Lanark; J. Kelman, Midlothian; R. Latta, Edinburgh; A. Laycock, Yorkshire; J. Lindsay, Dumfriesshire; J. Machray, Aberdeen; D. M'Intosh, Kingussie; H. M'Kean, Edinburgh; C. Matheson, Aberdeen; J. Mill, Edinburgh; W. Mitchell, Elginshire; J. Myles, Forfar; W. G. Reid, Stirlingshire; T. M. Ritchie, Edinburgh; J. Robertson, Perth: J. R. Roddick, South Australia; J. D. Rose, Argyll; J. C. Rossie, Orkney; J. Shanks, Forfarshire; J. Stenhouse, Fifeshire; D. A. Sturrock, Middlesex; A. Sutherland, Sutherlandshire; F. Thomson, Forfarshire; J. C. Thomson, Dumfriesshire; R. Williams, Carnarvonshire; W. M. Yool, Elgin.

SENIOR CLASS.

PRIZEMEN.—1. C. W. C. Barlow, Warwick: 2. J. R. Roxburgh, Edinburgh; 3. H. B. Pickard, Canada—(*Medals*): 4. A. C. Welch, Jamaica; 5. J. D. Fleming, Wigtown; 6. W. Thomson, Roxburghshire; 7. W. H. Rankine, Fife; 8. W. G. Allan, Edinburgh; 9. G. H. C. M'Gregor, Ross-shire; 10. J. Cook, Ayrshire; 11. J. Geddes, Dumfries; 12. E. Scott, Edinburgh; 13. A. Campbell, Perthshire, and R. Miller, Ayrshire—equal; 15. H. R. Mill, Caithness; 16. J. Marshall, Clackmannan.

CERTIFICATES OF DISTINCTION (Alphabetical).—A. Bain, Roxburgh; J. Black, Edinburgh; E. Catherall, Yorkshire; A. Howie, Kincardine; R. Hume, Selkirkshire; C. F. Jenkin, Edinburgh; J. Lamb, Forfar; J. M'Gregor, Perthshire; N. M'Lean, Midlothian; F. Miller, Forfarshire; A. Munro, Edinburgh; R. F. Robertson, Morayshire; J. J. Sharp, Northumberland; D. Struth, Perth; J. Sutherland, Caithness.

ADVANCED CLASS.

PRIZEMEN.—1. R. E. Allardice, Edinburgh (*Medal*); 2. R. P. Hardie, Edinburgh.

FIRST-CLASS CERTIFICATE OF DISTINCTION.—J. T. Holliday, Northumberland.

G. CHRYSTAL, *Professor.*

IV.—LOGIC AND METAPHYSICS.

SENIOR CLASS.

PRIZEMEN.—*Bruce of Grangehill and Falkland's Prize*—W. L. Carrie, M.A., Arbroath (*Medal*); 2. George Johnston, Berwickshire, John W. Oman, M.A., Orkney, and George Walker, Orkney—equal; 5. John A. M'Andrew, Canada.

CERTIFICATE OF DISTINCTION.—James W. M'Donald, Perthshire.

James Weir, M.A., Lanarkshire, who obtained a first place in the examinations, and James F. Gardner, M.A., Poonah, East Indies, who took a high place in the same, did not compete for the Honours of the Class.

JUNIOR CLASS.

PRIZEMEN.—1. John Gunn, Orkney (*Medal*); 2. George W. Stewart, Edinburgh; 3. J. A. Clapperton, Edinburgh, and J. D. Fleming, Wigtonshire—equal; 5. Alexander Howie, Kincardineshire, and Alfred A. Murray, Edinburgh—equal; 7. W. H. Rankine, Fifeshire; 8. W. G. Allan, Edinburgh, and Peter Campbell, Orkney—equal; 10. John Kelman, Leith, Norman M'Lean, Lanarkshire, and William Thomson, Roxburghshire—equal; 13. Robert P. Hardie, Edinburgh, and W. A. Scott, Edinburgh—equal; 15. James Cables, Forfarshire, Albert Goldsborough, Wiltshire, and James Smith, Dumfriesshire—equal; 18. Harold Knott, Lancashire, and James A. Ross, Ross-shire—equal.

SPECIAL PRIZES awarded to—1. Louis H. Jordan, M.A., B.D., Nova Scotia (*Medal*), who obtained a foremost place; 2. Innes G. Sutherland, Edinburgh, also distinguished—both students of the second year in Logic and Metaphysics, and as such disqualified for the ordinary competition.

CERTIFICATES OF DISTINCTION—1. James Clark, Hawick, and J. J. Cook, Fifeshire—equal; 3. J. G. Gow, Perthshire; William Jamieson, Caithness; Donald Smith, Perth; and A. P. Telfer, Lanarkshire—equal; 7. C. W. C. Barlow Stratford-on-Avon; John Burns, Edinburgh; James Cumming, Aberdeenshire; H. C. Robertson, Aberdeen; and Alexander Tait, Peebles—equal; 12. David Fraser, Aberdeenshire; R. L. Galloway, Edinburgh; W. M. Traill, Ayrshire; and Alexander Will, Arbroath—equal; 16. Arthur Barrett, Edinburgh; John Mackenzie, Inverness; and J. W. Tait, Midlothian—equal; 19. James Aitken, Berwickshire; Henry Bower, Forfarshire; Peter M'Donald, Cupar-Angus; and H. B. Pickard, New Brunswick—equal; 23. S. B. Bleau, Demerara; and G. D. Braik, Aberdeenshire—equal; 25. F. C. Wells Durrant, St Vincent, West Indies; J. B. Henderson, Haddington; John Lamond, Forfarshire; J. B. Simpson, Inverness: and John Wilson, Edinburgh—equal.

A. CAMPBELL FRASER, LL.D., *Professor.*

V. MORAL PHILOSOPHY.

(The numbers indicate the marks obtained out of a possible total of 545).

PRIZEMEN.—1. James W. M'Donald, Perthshire, 496 (*Medal*); 2. Andrew Rowand, Ayr, 491 (*Medal*); 3. Alexander Howie, Kincardineshire, 481; 4 and 5. Robert E. Allardice, Edinburgh; and

John A. M'Andrew, Canada, 474; Alfred Warr, Essex, 467; 7 and 8. John Gunn, Orkney, and James Marwick, Edinburgh, 466; 10. John Craigie, B.L., Blairgowrie, 457; 11. W. Jamieson, Wick, 456; 12. William Johnston, Inverness-shire, 455; 13. John Lamond, Troon, Ayr, 454; 14. James Middlemass, Edinburgh, 453; 15. Alfred A. Murray, Edinburgh, 451; 16 and 17. Robert Galloway, Renfrewshire, and Robert W. C. Mackenzie, Dundee, 450. (William Anderson, Argyllshire, withdrawn in ill-health, had reached 89 per cent.)

HONOUR CERTIFICATES, 75 per cent.—1, 2, and 3, P. M. Connell, Dunfermline, 447; David Duff, Helensburgh, 447; and William M. Teape, Edinburgh, 447; 4. Charles Murray, Stellenbosch, Cape Colony, 445; 5. David Baxter, Leith, 444; 6 and 7. David Fraser, Aberdeenshire, 439; and John L. Welch, Jamaica, 439; 8. Alexander J. P. Menzies, Ayr, 438; 9 and 10. A. B. Fletcher, 431; and Thomas O. Scott, Loughborough, 431; 11, 12, and 13. Thomas H. Bryce, Edinburgh, 430; Robert Fergusson, Roxburghshire, 430; and Donald M. Stewart, Pitlochrie, 430; 14 and 15. A. P. Telfer, Lanarkshire, 429; and Alexander Duff Watson, Edinburgh, 429; 16. George D. Braik, Aberdeenshire, 428; 17. William Mackay, Edinburgh, 427; 18. William Thorp, Guernsey, 426; 19. James Miller, Arbroath, 425; 20 and 21. P. G. Balfour, Edinburgh, 418; and A. H. W. M'Donald, Edinburgh, 418; 22. Peter Campbell, Orkney, 416; 23, 24, and 25. James Clark, Hawick, 415; Alexander M'Dougall, Edinburgh, 415; and James M. Ross, Forfarshire, 415; 26, 27, and 28, Crossley W. C. Barlow, Warwickshire, 412; John Munro, Inverness, 412; and James Paul, Dundee, 412; 29. Louis H. Gow, Edinburgh, 411; 30. R. S. Black, Inverness, 408.

SPECIAL EXAMINATION—PRIVATE STUDY IN KANT'S METAPHYSIC OF ETHICS.

1. Alexander Howie, Kincardineshire (*Medal*); 2. Alfred A. Murray, Edinburgh (*Medal*). *Honourable Mention.*—John Gunn, Orkney.

ADVANCED CLASS.

(The numbers indicate the proportion of 240).

1. Robert S. Simpson, Edinburgh (*Medal*), 201; 2. William L. Carrie, M.A., Edinburgh (*Medal*), 199; 3. John W. Oman, Orkney, 186.

HONOUR CERTIFICATES.—1. John A. M'Andrew, Canada, 169; 2. James Gardner, Edinburgh, 159; 3. James B. Nicholson, Leven, Fifeshire, 149.

H. CALDERWOOD, LL.D., *Professor.*

VI. NATURAL PHILOSOPHY.

SUMMER SESSION, 1881.—TUTORIAL CLASS.

FIRST CLASS CERTIFICATES OF MERIT AND PRIZES.—1. P. Campbell, Orkney, and J. Walls, Dunfermline—equal; 3. G. W. Stewart, Edinburgh.

SECOND CLASS CERTIFICATES OF MERIT.—4. Arch. Fleming, Perth, and A. C. Renton, Berwick—equal; 6. J. Cook, Ayrshire and, R. Stewart, Perthshire—equal.

C. G. KNOTT,
Assistant to the Professor of Natural Philosophy.

WINTER SESSION 1881.

ORDINARY CLASS—LOWER DIVISION.

PRIZEMEN.—1. C. W. C. Barlow, Warwick; and H. R. Mill, Caithness—equal; 3. J. Alison, Fife; J. Clark, Roxburghshire; and J. Walls, Fife—equal (*Medals*); 6. R. Muir, Roxburghshire; 7. W. Scott, Edinburgh; and W. Thomson, Roxburgh—equal; 9. W. Crawford, Linlithgow; 10. R. Hume, Selkirkshire; and R. Robertson, Forfarshire—equal; 12. G. T. Murray, New Zealand; and W. Peddie, Orkney—equal; 14. J. Morison, Perth; 15. D. Dougal, Linlithgow; 16. P. Macdonald, Perthshire; H. Mackenzie, Edinburgh; and A. C. Welch, Jamaica—equal; 19. J. Cook, Ayrshire; 20. H. C. Robertson, Aberdeen.

UNIVERSITY CERTIFICATE.—21. E. Catherall, Yorkshire; A. King, Perthshire; John M'Gregor, Perthshire; W. A. Scott, Edinburgh; and J. Shanks, Forfarshire—equal; 26. G. M'Gregor, Ross-shire, W. R. Notman, Sutherlandshire; and D. R. Urquhart, Forfarshire—equal; 29. A. Bain, Roxburgh; and J. Marshall, Clackmannan—equal; 31. W. G. Reid, Stirling; 32. J. M. Ghose, India; and W. M'Glashan, Perth—equal; 34. J. D. Porteous, Keith; 35. A. Campbell, Perthshire; H. Hunter, Forfar; and G. Walker, Orkney—equal; 38. J. J. Cook, Fife; 39. E. Scott, Edinburgh; 40. J. Myles, Edinburgh; 41. J. J. Sharp, Northumberland; 42. G. Stewart, Edinburgh; F. Miller, Forfarshire; and T. White, Dumfriesshire—equal; 45. J. C. Dunlop, Lanark.

HIGHER DIVISION.

PRIZEMEN.—1. J. R. Roxburgh, Edinburgh; 2. N. Leask, Orkney.

VOLUNTARY ESSAY.

PRIZEMAN.—W. Peddie, Orkney. COMMENDED.—H. R. Mill, Caithness.

FORTNIGHTLY EXAMINATION.

PRIZEMEN.—1. J. Alison, Fife; J. Clark, Roxburghshire; H. R. Mill, Caithness; and J. Walls, Fife—equal; 5. C. W. C. Barlow, Warwick, and W. Scott, Edinburgh—equal; 7. G. M'Gregor, Ross-shire; R. Muir, Roxburghshire; and W. Thomson, Roxburgh—equal; 10. W. Crawford, Linlithgow, and J. R. Roxburgh, Edinburgh—equal; 12. W. Peddie, Orkney; 13. J. G. Gillespie, Lanarkshire; C. F. Jenkin, Surrey; H. Mackenzie, Edinburgh;

W. R. Notman, Sutherlandshire; W. C. Reid, Stirling; W. A. Scott, Edinburgh; and A. C. Welch, Jamaica—equal; 20. J. Cook, Ayrshire; G. T. Murray, New Zealand; and R. Robertson, Moray—equal.

PHYSICAL LABORATORY.

HIGHLY COMMENDED.—Atkins, Clark, M'Kenzie, Marshall, Middlemass, Muir, Peddie, Renton, Rintoul, Roxburgh, Stewart, Waddell.

P. G. TAIT, *Professor.*

VII.—RHETORIC AND ENGLISH LITERATURE.

1. CLASS PRIZES AND CERTIFICATES OF DISTINCTION.

PRIZES.—1. Ebenezer Black, Liddesdale (*Medal*); 2. Andrew Rowand, Ayr (*Medal*); 3. Robert Galloway, Birkenhead (*Medal*); 4. James M. Barrie, Forfarshire; 5. John Lamond, Forfarshire; 6. James Millar, Arbroath; 7. R. E. Osborne, Londonderry, and William Stephen, Carnwath—equal; 9. David Duff, Helensburgh; 10. Robert Ferguson, Roxburghshire; 11. R. W. C. Mackenzie. Forfar, and Wm. M. Traill, Ayrshire—equal; 13. Alex. M'Dougall, Edinburgh; 14. Ryrie Orr, Fife; 15. John A. Smith, Ross-shire, and Robert C. Hume, Galashiels—equal; 17. John Craigie, Blairgowrie; 18. Robert Stewart, Strathtay; 19. William M. Teape, Edinburgh; 20. John L. Welch, Jamaica.

CERTIFICATES OF DISTINCTION.—1. James Mitchell, Fifeshire; 2. Wm. C. Gray, Edinburgh; 3. Adam Forbes, Prestonpans; 4. E. M. Macphail, Edinburgh; 5. David Baxter, Leith, and A. H. W. Macdonald, Kirknewton—equal; 7. R. S. Black, Inverness; 8. Peter Campbell, Orkney; 9. Donald M. Stewart, Pitlochrie; 10. John Brander, Macduff; 11. James Middlemass, Edinburgh; 12. James C. Anderson, Dunfermline; 13. George Brown, Edinburgh; 14. Alexander Duff Watson, Edinburgh; 15. James Aird, Ayrshire; 16. William Thorp, Guernsey; 17. Thos. O. Scott, Loughborough; 18. Adam Young, Ayrshire; 19. James Archibald, Edinburgh; 20. George Donald, Aberdeenshire; 21. James W. Caithness, Kincardineshire; 22. James Ferguson, Edinburgh; 23. L. H. Gow, Edinburgh; 24. John M'Laren, Fifeshire; 25. A. J. P. Menzies, Inverness.

2. ESSAY PRIZES AND CERTIFICATES OF DISTINCTION.

PRIZES.—1. Ebenezer Black, Liddesdale (*Medal*); 2. William M. Teape, Edinburgh (*Medal*); 3. Donald M. Stewart, Pitlochrie; 4. A. J. P. Menzies, Inverness, and William Stephen, Carnwath—equal; 6. James M. Barrie, Forfarshire, and John L. Welch, Jamaica—equal; 8. John Lamond, Forfarshire; 9. Alfred Warr, Essex; 10. George Brown, Edinburgh; 11. James C. An-

derson, Dunfermline; John Craigie, Blairgowrie; and Alex. C. Tolmie, Inverness-shire—equal.

CERTIFICATES OF DISTINCTION.—1. Thomas H. Bryce, Dalkeith; Andrew M. Moodie, Dunfermline; and William R. Muir, Sydney—equal; 4. James Ferguson, Edinburgh, and R. W. C. Mackenzie, Forfar—equal; 6. James Aird, Ayrshire; David Duff, Helensburgh; David K. Fisher, Fifeshire; Alfred W. Sansome, Mid-Lothian; and Alex. Westwater, Fifeshire—equal; 11. William Dand, Dundee; 12. John Duff, Perthshire; L. H. Gow, Edinburgh; Charles Johnston, Falkirk; John Kalligan, Ayr; and Owen G. Owen, Carnarvon—equal.

3. EXAMINATIONS IN OLD ENGLISH.

PRIZES.—1. Ebenezer Black, Liddesdale; 2. John C. Oliphant, Edinburgh, and William Stephen, Carnwath—equal.

4. POETICAL COMPOSITION.

PRIZE.—Ebenezer Black, Liddesdale.

DAVID MASSON, LL.D., *Professor.*

VIII.—AGRICULTURE.

CLASS MEDAL.—R. P. Wright, Ayrshire.

FIRST-CLASS CERTIFICATES.—R. P. Wright (92 per cent. of marks); G. J. Wallace, Dunfermline (91); Henry Prain, Perthshire (85); William Thomson, Glasgow (83); D. Finlayson, Caithness (83); P. Reid, Linlithgow (82); A. H. Gibson, Fife (76); J. W. Wallace, Dumfries (75); J. Cowper, Northumberland (75); W. L. Branford, Norfolk (75).

SECOND-CLASS CERTIFICATES.—Benjamin Hepburn, Haddington (73 per cent.); G. M. M'Lean, Perthshire (73); James Walker, Edinburgh (72); T. O. Elliot, Durham (72).

The Prizes of £10 in books, given by the Highland and Agricultural Society, were awarded on special examination to—1st Prize, Henry Prain; 2d Prize, Wm. T. Thomson and R. P. Wright—equal.

JOHN WILSON, *Professor.*

IX.—ENGINEERING.

SURVEYING, LEVELLING, AND SETTING OUT.

SUMMER SESSION, 1881.

MEDAL AND FIRST PRIZE.—Stephen Henderson, Aberdeen.

SECOND PRIZE AND FIRST CLASS CERTIFICATE.—Alex. Drew, Edinburgh.

THIRD PRIZE AND FIRST CLASS CERTIFICATE.—James Prentice, Berwickshire.

First Class Certificate.—George Vibart, Jersey.
Second Class Certificates.—James Meikle, Edinburgh; A. E. Jerdon, Edinburgh; George Beattie, Edinburgh.

Winter Session, 1881-82.

Medal and First Prize Divided.—Arch. Campbell Eliott, Glasgow, and William Scott, Edinburgh—equal.
Second Prize and First-Class Certifcate.—Robert Robertson, Dundee.
First-Class Certificate.—Robert Lyell, Forfarshire.
Second-Class Certificates.—Henry Mowbray Cadell, Linlithgowshire; Alexander Drew, Edinburgh; D. R. Urquhart, Dundee; George T. Murray, Dunedin.

FLEEMING JENKIN, *Professor.*

X.—GEOLOGY AND MINERALOGY.

Medalist.—John Rattray, Perthshire, 89 per cent.
Certificates of Merit.—James N. Ogilvie, Aberdeenshire, 88; Henry M. Cadell, Linlithgowshire, 86; R. J. Harvey Gibson, Dumbartonshire, 85; George L. Gulland, M.A., Edinburgh, 82; George T. Murray, New Zealand, 80; Robert T. Omond, Edinburgh, 77; Sinclair S. Gunn, Caithness, 65; William Marshall, Edinburgh, 62; Henry A. Watson, Forres, 61; Francis R. Scharff, Leeds, 56; Cosmo I. Burton, Edinburgh, 53; Henry Farquhar, Forfarshire, 51.

ARCH. GEIKIE, *Professor.*

XI.—POLITICAL AND COMMERCIAL ECONOMY AND MERCANTILE LAW.

PRIZEMEN AND FIRST-CLASS HONOURS.

1. *Merchant Company Prize* (£10, 10*s.*) *and Medal.*—G. H. Knott, Yorkshire. 2. *George Watson's Prize.*—John White, Edinburgh. 3. *Daniel Stewart's Prize.*—J. G. Smith, Edinburgh; 4. J. A. MacAndrew, Ontario, A. W. Renton, M.A., Fife, and W. Semple, M.A., Ayr—equal; 7. W. Lawrie, Roxburghshire.

Essays.—1. W. Mackenzie, Perthshire (*Special Prize*); 2. Semple; 3. Lawrie and Smith—equal

Second-Class Honours.—1. H. J. S. Mackay, Caithness; 2. G. E. L. Campbell, Cheltenham; 3. W. Tweeddale Thompson, Fife; 4. W. Fraser.

J. SHIELD NICHOLSON, M.A., *Professor.*

XII.—SANSKRIT.

W. J. Seelye (*Muir Prize*, £5); Gerald E. L. Campbell (*Medal*).

JULIUS EGGELING, *Professor.*

XIII.—MUSIC.

FIRST-CLASS CERTIFICATES.

HARMONY.—John Hall, Mark G. Davidson.
ORGAN.—John Hall, Horace J. Pechell.
PIANOFORTE.—F. W. Deas, Mark G. Davidson.

HERBERT OAKELEY, *Professor.*

XIV.—THE THEORY, HISTORY, AND ART OF EDUCATION.

MEDALS AND FIRST-CLASS CERTIFICATES.—John Peattie and David Baxter.

FIRST-CLASS CERTIFICATES.—Thomas Amos, John C. Anderson, Ezra Catherall, David Dawson, Robert Dick, John K. Duff, Peter C. Durward, John Gorrie, Alexander Hay, Arthur Laycock, Peter M'Duff, Henry Paton, M.A., James Rennie, William Robertson, Alexander T. Squair, James Sutherland, John W. Tait.

S. S. LAURIE, *Professor.*

XV.—FINE ART.

PROFICIENCY IN CLASS ESSAYS.—*The Cousin Prize* (£18)—David J. Vallance.

CLASS EXAMINATIONS.—David J. Vallance, John Armstrong.

J. BALDWIN BROWN, *Professor.*

FACULTY OF DIVINITY.

I.—DIVINITY.

STUDENTS OF THE THIRD YEAR.

PRIZEMEN.—1. William Howard Campbell, M.A.; 2. Alexander Horn, M.A.; 3. Neil Kennedy M'Kenzie, M.A.; 4. William B. Ritchie, M.A.; 5. Henry Farquhar, M.A.

HONOURABLE MENTION.—1. Thomas Crosby, M.A.; 2. Thomas A. Bickerton, M.A., and William Thompson, M.A.—equal.

STUDENTS OF THE SECOND YEAR.

PRIZEMEN.—1. William P. Paterson, M.A.; 2. William C. Fraser; 3. John Charles Carrick, M.A.; 4. John F. Andison, M.A.; 5. John A. Snodgrass.

HONOURABLE MENTION.—1. John Wattie, M.A.; 2. Patrick K. M'Kenzie, M.A.; 3. Oswald Bell, M.A.; Alex. Middleton, M.A.; and Thomas Porteous, M.A.—equal; 4. John Dinwiddie, M.A., and J. G. Christie, M.A.—equal.

STUDENTS OF THE FIRST YEAR.

PRIZEMEN.—1. Andrew B. Wann, M.A. ; 2. John M'Naughton, M.A. ; 3. Charles Robertson, M.A. ; 4. John Heron, M.A. ; 5. John Bird, M.A.

FOR EXCELLENCE IN EXAMINATIONS.—Lothian Gray, M.A.

HONOURABLE MENTION.—1. Wm. Walker, M.A. ; 2. Arthur P. Sym, M.A., 3. David Wilson ; 4. Thomas H. Chapman, M.A., Harvey Nichol, and James B. Nicoll—equal.

ROBERT FLINT, D.D., *Professor.*

II.—HEBREW.

JUNIOR CLASS.

PRIZEMEN.—1. Lothian Gray, M.A., Edinburgh (*University Medal*) ; 2. Arthur Pollok Sym, M.A., Midlothian ; 3. Charles Robertson, M.A., Perthshire ; 4. John T. Bird, M.A. Berwickshire ; 5. Thos. H. Chapman, M.A., Fife ; 6. Patrick A. Kennedy Mackenzie, M.A., Inverness-shire.

NEXT IN MERIT.—7. Andrew B. Wann, M.A., Perth ; 8. John Heron, M.A., Edinburgh ; 9. Thomas Lugton, M.A., Berwickshire ; 10. William Walker, M.A., Midlothian ; 11. David Wilson, M.A., Perthshire ; 12. George Calder, M.A., Kincardineshire.

SENIOR CLASS.

PRIZEMEN.—1 and 2. John A. Snodgrass, Dumfriesshire, and William M. Teape, Edinburgh—equal (*University Medals*) ; 3. Thomas Porteous, M.A., Edinburgh ; 4. George Hogg, M.A., Edinburgh ; 5. John Wattie, M.A., Aberdeenshire.

NEXT IN MERIT.—6. Alexander Middleton, M.A., Kincardineshire ; 7. James A. Gordon, M.A., Newbattle ; 8. John G. Christie, M.A., Perthshire ; 9. John Dinwiddie, M.A., Lochmaben ; 10. James N. Ogilvie, M.A., Aberdeen.

D. L. ADAMS, B.D., *Professor.*

III.—DIVINITY AND CHURCH HISTORY.

PRIZEMEN.—1. Alexander Horn, M.A., Clackmannanshire (289 marks in 300) ; 2. W. Howard Campbell, M.A., Londonderry, and Charles Robertson, M.A., Perthshire—equal (264) ; 3. Thos. A. Bickerton, M.A., Kirkcudbrightshire, and William B. Ritchie, M.A., Ayrshire—equal (259) ; 4. Henry Farquhar, M.A., Forfarshire, and William Thompson, M.A., Fort-William, Invernessshire—equal (252) ; 5. Thomas Lugton, M.A., Berwickshire (248) ; 6. Andrew B. Wann, M.A., Perthshire (246).

NEXT IN MERIT.—James R. Sabiston, M.A., Orkney (230) ; Henry K. Reekie, M.A. Fifeshire (228). John Macnaughton, M.A., Perthshire, who was unable to attend the third written examination, obtained an average of 80 marks for the other two.

M. C. TAYLOR, D.D., *Professor.*

IV.—BIBLICAL CRITICISM AND BIBLICAL ANTIQUITIES.

1 and 2. William Howard Campbell, M.A., and John Charles Carrick, M.A.—equal; 3 and 4. W. P. Paterson, M.A., and W. B. Ritchie, M.A.—equal; 5. Ghosn El Howie (a blind student from Syria); 6 and 7. W. C. Fraser and J. A. Gordon, M.A.—equal; 8 and 9. J. N. Ogilvie, M.A., and John Wattie, M.A.—equal.

A. H. CHARTERIS, D.D., *Professor.*

FACULTY OF LAW.

I.—PUBLIC LAW.

WINTER SESSION, 1881-82.

PRIZEMEN.—1. A. Wood Renton, M.A.; 2. P. M. Macintyre, M.A.; 3. T. W. Buchan, M.A.

FIRST-CLASS HONOURS.—R. F. Myles, M.A.; E. D. Young, M.A.; J. A. Fleming; A. L. M'Clure, M.A.

SECOND-CLASS HONOURS.—T. Ronaldson; J. Clark, M.A.; J. C. Shairp, B.A.

JAMES LORIMER, *Professor.*

II.—CIVIL LAW.

WINTER AND SUMMER SESSIONS, 1880-81.

PRIZEMEN.—1. William J. Cullen, M.A. Edin.; 2. W. Kinnaird Rose; 3 and 4. James Farie Anderson, M.A. Glasg. LL.B. Edin., and George P. M'Neil, M.A. Edin.—equal.

HONOURS OF THE FIRST CLASS.—THE PRIZEMEN.—5. Hay Shennan; 6. Mark J. Davidson, M.A. Glasg.; 7. James E. Grosset, M.A. Edin.

HONOURS OF THE SECOND CLASS.—8. Patrick Smith, M.A. Glasg.; 9. James Macdonald, M.A. Edin.; 10 and 11. John K. Laidlaw and William C. Macgregor—equal; 12. Alexander Wallace; 13. George R. Macdonald; 14. Patrick C. Robertson, M.A. Edin.; 15 and 16. John D. Duff and James Steuart, M.A. Edin.—equal; 17 and 18. Thomas H. Manson and Thomas Ronaldson—equal; 19. Andrew Wishart, M.A. Edin.; 20 and 21. John Scott, M.A. St And., and W. B. Wilson—equal; 22 and 23. Hugh Brown, M.A. Edin., and James C. C. Brown, M.A. Edin.—equal.

JAS. MUIRHEAD, *Professor.*

III.—SCOTS LAW.

Summer Session, 1881.—Criminal Law.*

W. M'Nab Morris, Forfarshire, and Robert L. Orr, Morayshire—equal.

* Not open to Prizemen in Municipal Law.

Municipal Law.*

1. Charles Clark Duncan, Forfarshire; 2 and 3. Colin George Mackenzie, Ross-shire, and John Veitch, Ayrshire—equal.

* Not open to Prizemen in Criminal Law nor to Prizemen of Winter Sessions.

General Honours List.

First Class Honours.—1. Robert L. Orr, Morayshire; 2. John Stewart, Perthshire; 3. Robert Handyside, Roxburghshire; 4. Charles C. Duncan, Forfarshire.

Second Class Honours.—1 and 2. Colin George Mackenzie, Ross-shire, and W. M'Nab Morris, Forfarshire—equal; 3. Peter M'Naughton, Stirlingshire; 4. Douglas Gillespie, Kirkcudbrightshire; 5. James M. Boyd, Perthshire; 6. Alexander Wylie, Kirkcudbrightshire; 7 and 8. A Forrest, Edinburgh, and J. Lockhart Innes, Fifeshire—equal; 9. Andrew G. Scott, Edinburgh; 10. Hugh M'Callum, Argyll; 11. James A. B. Horn, Clackmannanshire; 12. John Ogilvie, Forfarshire; 13. John Veitch, Ayrshire; 14. James Millar, Fifeshire; 15 and 16. Charles Garrow, Morayshire, and James Ayton, Londonderry—equal; 17 and 18. J. Ogilvie, Forfarshire, and Andrew Stevenson, Canada—equal; 19 to 30 (placed alphabetically)—Thomas W. Buchan, Edinburgh; P. W. Drummond, Perthshire; A. B. Fletcher, Morayshire; Henry Gray, Stirlingshire; George Hanton, Forfarshire; James Macdonald, Ayrshire; Thomas M'Naughton, Perthshire; J. M. Milne, Forfarshire; Adam Shepherd, Forfarshire; Francis Squair and George Sneddon, Linlithgowshire; and G. B. Tweedie, Edinburgh.

Winter Session, 1881-82.

First-Class Honours.—1. William Nicoll, Forfarshire; 2. William Chree, Forfarshire; 3 and 4. James E. Grosset, Fife, and William D. Marshall, Stirlingshire—equal; 5 and 6. James Caldwell, Renfrewshire, and John S. Watt, Aberdeen—equal; 7. George Proctor, Elgin; 8. David B. Robertson, Fife; 9. Ebenezer Henderson, Forfarshire; 10. George H. Boyd, M.A., Edinburgh.

Second-Class Honours.—1, 2, and 3. David Rattray Adair, Forfarshire; Wm. James Cullen, Edinburgh; and Isaac Connell, Fife—equal; 4 and 5. J. A. Patullo, Forfarshire, and John Scott, Fife—equal; 6. Alex. Stewart, Perth; 7. John M'Laren, Renfrew; 8.

James H. Waddell, Lanark; 9. George Wilton Wilton, Edinburgh; 10. Lawrence M. Mackenzie, Fife; 11, 12, and 13. W. H. B. Martin, Forfarshire; Finlay Muirhead, Lanark; and Alexander Wallace, Fifeshire—equal; 14. James Duncan, Bute; 15. John Cairns, Forfarshire; 16. Thomas Murray Mackay, Caithness; 17. Alexander W. Wilson, Banffshire; 18. George R. Macdonald, Inverness; 19, 20, and 21. A. Dingwall Ross, Ross-shire; William Fletcher, Morayshire; and Donald Mustard, Morayshire—equal; 22. Robert Macdougald, Edinburgh; 23. James P. S. Lindsay, Clackmannanshire; 24. John Seton, Edinburgh; 25. William Lindsay, Edinburgh; 26. David Bett Tod, Fife; 27. James A. Strachan, Edinburgh; 28. Patrick Smith, Linlithgow, 29 and 30. Robert A. Hill, Stirling, and Archibald Patrick Moir, Clackmannan—equal; 31. William Gourley, Edinburgh; 32 to 38 (arranged alphabetically). William Collie, Elginshire; Donald M. Jackson, Haddington; Alex. Morison, Dumfriesshire; G. F. Parsons, Somersetshire; J. M. Runciman, Edinburgh; John Sandison, Berwickshire; Allan A. Yule, Midlothian.

NORMAN MACPHERSON, *Professor.*

IV.—CONVEYANCING.

First-Class Honours.—1. John Stewart, Perthshire; 2. *Robert Russell, Fifeshire; 3. David Gillies, Forfarshire; 4. Alexander Wylie, Kirkcudbright; 5. John L. Innes, Fifeshire; 6. *Douglas Gillespie, Kirkcudbright; 7. James Caldwell, Renfrewshire; 8. David Warren Gilchrist, Caithness; 9 and 10. Henry Gray, Stirlingshire, and John Veitch, Ayrshire—equal.

N.B.—Mr Robert Handyside, Roxburghshire, after obtaining 95 per cent. of the possible marks in the six examinations which he attended, was prevented by illness from taking honours, having been absent from two examinations.

Second-Class Honours.—1 and 2. Pierre W. Drummond, Perthshire, and Daniel Mitchell, Shetland—equal; 3 and 4. William Bell Edgar, Dumfriesshire, and Thomas Kemp, Selkirkshire—equal; 5 and 6. W. M'Nab Morris, Forfarshire, and James Miller, Fifeshire—equal; 7. James M. Boyd, Perthshire; 8 and 9. William A. Bell, Forfarshire, and John A. Forrest, Edinburgh—equal; 10 and 11. James Ayton, Londonderry, and Matthew Grant, Stirlingshire—equal; 12 and 13. William Balfour, Orkney, and James Rattray, Forfarshire—equal; 14. *Robert Young, Stirlingshire; 15 and 16. George Hanton, Forfarshire, and Francis Squair, Inverness-shire—equal; 17. *Henry Millie, Fifeshire; 18. Andrew G. Scott, Edinburgh; 19. John D. Duff, Midlothian; 20. James H. Waddell, Lanarkshire; 21. David W. Walker, Stirlingshire; 22. John Ogilvie, Forfarshire; 23 and 24. James Morison, Perthshire, and Patrick Smith, Lanarkshire—

equal; 25. Archibald G. Young, Bute; 26. *Robert S. Dewar, Perthshire; 27. Robert M. Main, Haddington; 28. George B. Tweedie, Edinburgh; 29 and 30. Charles Garrow, Morayshire, and James Macdonald, Ayrshire—equal.

**Second year students.*

JAMES S. FRASER TYTLER, *Professor.*

V.—CONSTITUTIONAL LAW AND HISTORY.

SUMMER SESSION, 1881.

Prizes.—1. Alexander W. Renton, M.A. Edin.; 2. J. S. Watt, Aberdeen.

Mentioned with Honours—James Clark, M.A. Edin.; Ebenezer Denholm Young, M.A. Glasg.; John Peter Grant, B.A. Oxon.; Findlay Muirhead, M.A. Edin.

ESSAYS.

Prizeman—Alexander Blacklaw, Aberdeenshire.

Mentioned with Honours.—Alexander W. Renton, M.A. Edin.; Findlay Muirhead, M.A. Edin.; Ebenezer Denholm Young, M.A. Glasg.; J. R. Cosens, Edinburgh.

ÆNEAS J. G. MACKAY, *Professor.*

VI.—MEDICAL JURISPRUDENCE.

SUMMER SESSION, 1881.

BRONZE MEDAL OF THE UNIVERSITY.—1. Robert Low Orr, Morayshire, 82·5 per cent.

Honours of the First Class.—2. William J. Cullen, Edinburgh, 79 per cent.

Honours of the Second Class.—3. James Clark, Pollockshields, 74 per cent.

DOUGLAS MACLAGAN, M.D., *Professor.*

FACULTY OF MEDICINE.

I.—BOTANY.

SUMMER SESSION, 1881.—SENIOR DIVISION.

FIRST CLASS CERTIFICATES.—Harold J. Stiles, 93 (*Special Prize*); F. H. Simmons, 90·5; A. S. Cumming, 89·5; and Edward Carmichael, 88 (*Medals*); H. A. Thomson and W. Lundie, 87—equal; M. Altounian, 85; R. Howden and L. W. Watson, B.A., 84—equal; J. M. Cadell, Thomas Thyne, and John Sadler, 83·5—equal; John Robertson, 82; A. M. Adams, 81·5; Angus Mathe-

son and H. H. Pridie, 79—equal; Thomas Fraser, G. H. Kenyon, and Archibald Macqueen, 78—equal; G. F. Johnston, 77; F. A. Pockley and Quintin M. Wallace, 75—equal.

SECOND CLASS CERTIFICATES.—Thomas Johnstone, 72·5; W. R. M'Kinnel, 72; George Smith, 70·5; H. Bramwell and A. H. Croucher, 68·5—equal; A. C. Purchas, 66·5; Alex. Schorn, 65·5; N. J. M'Kie, 63·5; J. Delepine and J. Hunter, 57·5—equal; J. H. Neale, 57; J. R. Burns, 53; Edwin Eckersley, 52; Jos. G. Cossins and David Laing, 51·5—equal.

JUNIOR DIVISION.

FIRST CLASS CERTIFICATES.—B. E. Jastrzebski, 82·5 (*Special Prize*); P. Reid, 80·5; J. C. Vaughan and E. Walker, 79·5—equal; W. G. Reid and W. J. Thomas, 77·5—equal (*Medals*); J. W. Smith, 76·5; M. M'Laren, B.A., 75.

SECOND CLASS CERTIFICATES.—F. W. Collinson and R. C. Joyce, 71·5—equal; J. B. Henderson, 71; E. Antrobus, 70·5; E. Black, 69·5; R. P. Wright, 69; J. M. Maclennan, 67·5; A. Fisher, J. C. Lamont, and P. B. M'Nicoll, 67—equal; G. A. Scott, 66·5; E. Robertson and Geo. Anderson, 64—equal; J. A. Guthrie, 61·5; W. R. Taylor, 60·5; Wm. Laing, 59·5; A. H. Gibson and C. J. Lewis, 59—equal; J. Cumming, 58·5; S. Hughes, 56·5; W. M. Teape, 56; H. E. B. Dickson, 54·5; C. H. Waters, 53; J. H. Davie, 52·5; W. R. Tait, 51·5; A. Brewster, J. M'Ainsh, and F. W. Cownie, 50—equal.

Note.—Mr H. R. Mill obtained 69 per cent. of the available marks at the First Class Examination, but was unable, from illness, to attend the second one.

PRACTICAL BOTANY AND VEGETABLE HISTOLOGY.

FIRST CLASS CERTIFICATES.—R. J. H. Gibson, M.A. (*Special Prize*), and Edward Chamberlayne (*Special Prize*)—(*Medals*); G. L. Gulland and J. C. Robertson—equal; F. W. Collinson, William Lundie, and J. S. Sprague—equal; Edward Antrobus and G. F. Johnston—equal; Fred. C. Roberts.

SECOND CLASS CERTIFICATES.—E. W. Clark, James Smieton, Ernest Turner, and R. P. Wright—equal; K. Douglas, Y. S. Snitwong, and W. J. Thomas—equal; A. H. Gibson, P. C. C. Smith, T. F. Southam, and R. Stirling—equal; Trevor Y. Pritchard, D. M. Greig, James W. Martin, D. M. Moir, and J. Tait—equal; N. J. Kurkjie, John Macnab, and C. B. Smith—equal.

ALEX. DICKSON, M.D., *Professor.*

II.—NATURAL HISTORY.

SUMMER SESSION, 1881.—SENIOR DIVISION.

FIRST CLASS HONOURS.—1. John M. Balfour and Reginald A. Horsley, 95—equal; 2. F. A. Pockley, 88½; 3. Fourness H. Simmons,

84½; 4. John R. Henderson and G. H. Kenyon, 83—equal; 6. John B. Thackwell, 81; 7. Joseph Rutter, 77½.

SECOND CLASS HONOURS.—1. George F. Johnstone, 70; 2. John Sadler, 64½; 3. Harold J. Stiles, 63; 4. Basanta K. Basu, 61; 5. W. G. Little, 52½; 6. John W. Pare, 51; 7. A. Raimes and David Walker, 50—equal.

THIRD CLASS HONOURS.—1. David Wallace, 47; 2. H. Bramwell, 42½; 3. A. Leishman, 42; 4. William J. Cameron, 35; 5. Ahmed Fahmy, 30; 6. S. W. Matthias, 21½; 7. A. D. Vardon, 17½.

Apparently not in First Examination.—Alex. W. Davidson, 30.

JUNIOR DIVISION.

FIRST CLASS HONOURS.—1. Frederick Fritz King, 90; 2. James Ashton Guthrie, 83; 3. R. MacLelland, 80; 4. J. C. Lamont, 79½; 5. J. Tatham Thompson, 79; 6. B. M. Moorhouse and Thomas A. Watson, 78—equal; 7. F. G. Clemow, 76½; 8. William L. Ross, 76; 9. Stephen Frazer Clark, David M. Greig, and W. J. Thomas, 75—equal.

SECOND CLASS HONOURS.—1. Trevor Y. Pritchard, 72½; 2. Ernest Roberson, 71; 3. Alexander Brewster, B. E. Jastrzebski, and Hugh Robert Mill, 70—equal; 4. Hugh L. Roberts, 67½; 5. Alexander Fisher, 67; 6. W. Gillespie Reid, 66; 7. Wilton Love, 64½; 8. Murray MacLaren and Arthur J. Stiles, 64—equal; 9. John W. Smith, 62; 10. A. Johnstone and R. C. Joyce, 61—equal; 11. K. M. Douglas and R. S. Morrison, 60—equal; 12. Edward Bryden and John M. Stormonth, 58—equal; 13. D. C. M'Allum, 57; 14. George Anderson, W. H. B. Bansall, and William B. J. Gubbin, 56½—equal; 15. George J. Lumsden, H. Scurfield, Walter R. Taylor, and R. B. Wallace, 56—equal; 16. G. L. Gulland, M.A., and D. M. Moir, 54½—equal; 17. C. J. Lewis, Gerard A. Scott, and Edward Walker, 53—equal; 18. William A. Anderson, and William Gregory Gibson, 52—equal; 19. Harbit Brown, 51½—equal; 20. George D. C. Gibb, William Laing, Robert Stewart, J. W. Travell, and J. C. Vaughan, 51—equal; 21. R. Charlie Macwatt, and Clarence H. Waters, 50½—equal; 22. F. W. Collinson, G. Scott Davidson, Allan E. L. Gray, P. B. M'Nicol, E. B. Turner, and John L. Welch, 50—equal.

THIRD CLASS HONOURS.—1. T. J. Paton and Robert Stirling, 49—equal; 2. David Berry and W. J. Munro, 48½—equal; 3. W. E. Begbie and Duncan M'Diarmid, 48—equal; 4. John M'Gibbon and William R. Nasmyth, 47½—equal; 5. Fred C. Roberts, James Smieton, Alistair MacGregor, and A. H. Robinson, 47—equal; 6. George A. Tullis, 46; 7. J. B. Bawden, William Reid Tait, and Adam D. Wilson, 45—equal; 8. J. H. Dawe, W. E.

Thomas (N. Wales), and James Wilson, 44—equal; 9. S. Hughes, 42; 10. John MacJerrow, 41½; 11. William George Lyon, 41; 12. James G. Glover, John M'Nicoll and R. W. Smeddle, 40—equal; 13. M. S. P. Aganoor, 39½; 14. John A. S. Brown, Robert W. Johnston, and Charles C. Teacher, 39—equal; 15. C. G. Matthias and David D. Scotland, 38—equal; 16. H. L. Barker, Thomas V. Devey, John E. Gemmell, and Charles J. Morton, 36—equal; 17. Kenneth M. Scott, 35; 18. Arthur Drury, A. W. Monks, Robert Scharff, and W. H. Sutherland, 33—equal; 19. F. C. Thorpe and H. Ware, 32—equal; 20. A. W. G. Graham, George Thomson, and John Wannock, 30—equal; 21. Charles J. R. MacLean, 29½; 22. J. S. M'Pherson, 28½; W. P. Harries and John Macdonald, 28—equal; 23. F. H. Gee, 27; 24. Astley C. Roberts, 23; 25. Robert S. Forrest, 22½; 26. Charles R. Hailes, 22; 27. Andrew Young, 20; 28. James M'Diarmid, 16; 29. John K. Murray, 15; 30. Peter Allan, 12½; 31. L. H. Boothe and T. H. Fiske, 5—equal.

Apparently not in First Examination. — Alexander M. Gray, 55; John Kynock, 40; James F. Cownie, 30; J. E. Davies, 10; R. M. Lucy, 10.

PRACTICAL ZOOLOGY.

SENIOR DIVISION.

First Class Honours.—1. John Rattray, 92 (*Silver Medal*); 2. John B. Thackwell, 90; 3. David Laing, 78.

JUNIOR DIVISION.

First Class Honours.—1. G. L. Gulland, M.A., 86 (*Medal*); 2. J. S. Sprague, 82.

Second Class Honours.—4. H. Bramwell, 62; 5. W. C. Helme, 59; 6. J. Tatham Thompson, 58; 7. W. J. Cameron, 57.

H. ALLEYNE NICHOLSON, M.D., for
Sir WYVILLE T. C. THOMSON, *Professor.*

III. CHEMISTRY.

Winter Session, 1881-82.

JUNIOR DIVISION.

Medals and First Class Honours. — J. C. Lamont, Liverpool (92 per cent); F. W. Collinson, Alnwick (88); E. T. Pritchard, Hereford (87); W. J. Thomas, Cardiff (86); Fred. W. Stewart, M.A., Forfarshire; W. Evans Thomas, Merionethshire; and Quintin M. Wallace, M.A., Dumfries—equal (85); F. G. Clemow, Liverpool; George F. Johnston, Edinburgh; and Robert Stewart,

Strathtay—equal (84)—*Medallists*; Edwin S. Fry, Ramsgate (82); T. H. Griffith, London, and T. Morton Ritchie, Edinburgh—equal (80); William Elder, Haddington, and W. H. Turton, Heanor, Derbyshire—equal (79); A. J. Marshall, Linlithgow, (78); Fred. Truby King, New Zealand; D. Groves Marshall, Shrewsbury; and H. A. Watson, Forres—equal (77); George G. Chisholm, Edinburgh (76).

SECOND-CLASS HONOURS.—Arthur James Cross; Birmingham, and Alexander Fisher, M.A., Edinburgh—equal (71); Ernest T. Roberts, Worcester (70); James Anderson, Londonderry; John Frederick Farrar, Craven Edge, Halifax; and E. C. Kingdon, Nottingham—equal (69); E. Antrobus, Birmingham, and R. S. Coulthard, Bath—equal (67); Walter S. Counsell, South Australia; Joshua J. Hoffman, Cape of Good Hope; and Ernest Roberton—equal (66); John M. Nicoll, Wick; E. E. Pringle, Tarves, Aberdeenshire, and J. C. Vaughan, Gorakpur, India—equal (65); Thomas M'Donald, Dingwall (64); John W. Smith, Lancaster (63); Andrew W. Nash, New South Wales, and Gerard A. Scott, Edinburgh—equal (62); Charles Wilson, Dumfries, (61); G. Scott Davidson, Berwick-on-Tweed, and B. B. Grayfoot, Barbados—equal (60); Wm. Craig, Duncow, Dumfriesshire; J. M. Ghose, India; and Clarence H. Waters, Edinburgh—equal (59); George Anderson, Leith; James Brown, Darlington; S. Frazer Clark, Penang; and D. Macnish, Lochmaben—equal (58); A. E. L. Gray, Sunderland (57); James G. Glover, Sunderland; J. Ramsay Hill, Demerara; R. H. Mitchell, Leadhills; and W. Semple, Ayr—equal (56); J. Aldric Perez, Trinidad; James Reid, Dollar; Frederick Charles Roberts, Manchester; and John Ross, Perth—equal (55); John A. S. Brown, Dunipace; Archibald Campbell Elliot, C.E., Glasgow; and William R. Nasmyth, Auchterarder, Fife—equal (53); R. Selkirk Morrison, Galashiels (52); John Garvie, Perth; R. W. Smeddle, Shildoon; and Robert Stirling, Perth—equal (51); H. Brown, Northumberland; Ahmed Fahmy, Cairo; L. G. Fischer, St Andrews; James Ashton Guthrie, Halifax, Yorkshire; C. R. Hailes, Mangalore; William C. Hunter, Ardgaith, Perth; K. M. Scott, Bingley; and John Warnock, Tasmania—equal (50). The following Senior Students attended the Junior Examinations, and obtained:—D. Berry, Wick (90 per cent); W. Musgrave Eaton, Cape of Good Hope (85); E. B. Turner, Sussex (77); J. Hutcheson, Wigtownshire (50).

SENIOR DIVISION.

FIRST CLASS HONOURS.—*Robert Wilson Memorial Prize.*—*J. C. Lamont, Liverpool (82 per cent); *Fred. W. Stewart, M.A., Forfarshire (81); E. B. Turner, Sussex (79); *F. W. Mackenzie, Glenkenich, N.Z. (75); *Quintin M. Wallace, M.A., Dumfries

(74); *W. J. Thomas, Cardiff, and *W. H. Turton, Heanor, Derbyshire—equal (73); *F. W. Collinson, Alnwick, and W. L. Ross, Glasgow—equal (69); George E. Eyre, Cape of Good Hope, and *George G. Chisholm, Edinburgh—equal (63); *E. T. Pritchard, Hereford (62); W. Musgrave Eaton, Cape of Good Hope; *Edwin S. Fry, Ramsgate; and *Fred. Truby King, New Zealand—equal (61); *Joshua J. Hoffman, Cape of Good Hope, and *H. A. Watson, Forres—equal (60); *D. Groves Marshall, Shrewsbury (58); *Joseph Griffiths, Carmarthenshire, and *T. Morton Ritchie, Edinburgh—equal (56); *T. H. Griffith, London, and *George F. Johnston, Edinburgh—equal (52); *R. S. Coulthard, Bath (51); *Arthur James Cross, Birmingham, and *W. Evans Thomas, Merionethshire—equal (50).

Junior students are marked *.

Attended the First Senior Examination only—Lionel G. Wright (57).
Attended the Second Senior Examination only—D. Berry (71).

PRACTICAL CHEMISTRY.

Summer Session, 1881.

First-Class Honours.—F. Bond, E. W. Clarke, B. E. Jastrzebski, R. H. Lucy, and A. E. Morison (*Medals*); N. E. Aldridge, B. K. Basu, J. Bell, D. M. Brown, E. Carmichael, J. G. Cossins, F. E. Crossley, A. E. Henderson, R. Howden, R. S. Hubbersty, R. Jackson, G. S. Loutser, J. Mackay, W. B. Mackay, N. J. Mackie, A. Macqueen, A. Matheson, W. B. Nisbet, M. Paterson, H. Rae, J. C. Taylor, and S. F. Wernich.

Second-Class Honours.—A. M. Adams, D. Berry, P. Bowes, J. M. Cadell, D. S. Doughty, D. R. Dow, T. Easton, C. W. Howatson, T. Johnstone, A. Kellgren, C. J. Lewis, W. Love, J. R. Mason, W. J. Munro, T. A. Pockley, T. R. Rait, J. Robertson, J. Rutter, J. Sadler, F. H. Simmons, G. L. Somerville, H. F. Stephens, T. Thyne, A. Turner, W. Van der Vyver, N. P. Walker, L. W. Watson, G. H. Wilson.

Winter Session, 1881-82.

Medals and First-Class Honours.—U. N. Mukerji, Calcutta; Wm. L. Ross, Edinburgh.

First-Class Honours.—C. Bennet, Grimsby; E. K. Campbell, Campbeltown; A. H. Robinson, Whitby; J. R. Talbot, Londonderry; J. Hutcheson, Wigtownshire; J. C. Myles, Dundee; F. A. Heal, India; R. Stewart, Strathtay; W. Anderson, Caithness; G. F. Johnston, Edinburgh; P. B. M'Nicol, Stirling; J. Smieton, Broughty Ferry; J. Tullis, Jamaica.

Second-Class Honours.—J. J. Drinkwater, Wales; E. E. Pringle, Aberdeenshire; R. N. Bell, St John, New Brunswick; G. S. Davidson, Berwick-on-Tweed; B. B. Grayfoot, Barbados; F. A. Watson,

Sunderland; W. Laing, Fife; J. M'Gibbon, Edinburgh; A. J. Marshall, Linlithgow; J. Pirie, Edinburgh; F. W. Stewart, Forfarshire; C. A. Anderson, Shetland; G. G. Chisholm, Edinburgh; R. MacLelland, Wigtownshire; J. M. Morice, Elgin; W. A. P. Tait, Mid-Lothian; J. A. Clark, Edinburgh; D. C. Gray, Caithness; E. T. Roberts, Worcester; W. C. Sillar, London.

ALEX. CRUM BROWN, *Professor.*

IV. ANATOMY.

STUDENTS OF THE THIRD YEAR—PRACTICAL EXAMINATION.

First-Class Honours.—M. M. Basil, Ispahan; and George Mackay, Inverness—equal (97); A. P. Drummond, Edinburgh; and W. H. Miller, Canary Islands—equal (96)—*Medallists;* John Hutson, B.A., Barbados (95); William Duff, Aberdeen; and M. A. Ker, Edinburgh—equal (94); H. S. Lloyd, South Australia; and Walter Petter, Barnstaple—equal (93); E. H. Warner, Winchester, (92); John Cunninghame, Dunedin, N.Z.; T. E. Dyson, Yorkshire; and John Stevens, M.A., Bridge of Earn—equal (91); James Craig, Castle-Douglas; and John Macdonald, Inverness—equal (90); Alexander C. Miller, Fort-William; and Donald Paterson, Inverness—equal (89); J. H. Brown, Selby (88); W. T. Prout, Mauritius; and George Thomson, Berwickshire—equal (87); E. Greenough, Yorkshire (86); Archibald Donald, Edinburgh; D. K. Keith, Arbroath; J. M. Preston, Templemore; A. J. T. Roux, Cape Colony; and N. H. Walker, Arbroath—equal (85); G. S. Cardew, Lucknow; William Cumming, Montrose; A. T. Dochard, Airdrie; George Hewlett, County Louth; John Macdonald, Tobermory; O. R. P. Owen, North Wales; Thomas Rhodes, Preston; Arthur Robinson, Manchester; Claude Wilson, Liverpool; and A. C. Younan, Calcutta—equal (84); F. H. Knaggs, Huddersfield; Sydney Partridge, Darlaston; and Richard Vassie, Lanarkshire—equal (83); P. J. Baily, London; R. M. Brown, Edinburgh; E. A. Chill, Burmah; Horace Cocks, Norfolk; T. A. Helme, Lanarkshire; James Macpherson, Stirling; A. M. Paterson, Manchester; C. E. Paterson, Berwickshire; and Chisholm Ross, New South Wales—equal (82); C. H. Jones, Baltimore, U.S.; T. J. Jones, Herefordshire; J. S. Maclaren, Edinburgh; G. D. Malan, Cape Colony; James Paterson, Dumfriesshire; G. P. Taylor, Preston; and Theodore S. Wilson, Birmingham—equal (81); J. G. Cassels, Yorkshire; Wm. Cotton, Edinburgh; A. G. Fraser, M.A., Aberdeen; T. W. Gill, Lanarkshire; A. G. Paterson, Bahia; Arthur J. Stiles, Lincolnshire; John Tod, Crieff; C. G. Traill, N. S. Wales; and S. H. Wilson, Kent—equal (80); James M. Caw, Fife; A. Fuller, Cape Town; R. R. Giddings, London; E. M. Inglis, N. S. Wales; W. Duncan Scott, Glasgow; R. S. Thornton, Edinburgh; and P. Yates, Bolton—equal (79); J. H. L. Allott, Yorkshire; T. W. Dewar,

Edinburgh; J. S. Haldane, Edinburgh; J. A. Lestrade, St Lucia; and J. H. Neale, Leicestershire—equal (78); Edwin Baily, London; D. G. Donaldson, Methven; E. R. Harriott, Jamaica; C. J. Macalister, Liverpool; James Macleod, Sydney; David Milligan, Edinburgh; and A. C. Rodrigues, Demerara—equal (76); John Barrie, Dalkeith; T. J. Fletcher, Cheshire; G. V. Hewland, London; R. S. Miller, Shotts; U. N. Mukerji, Calcutta; and S. R. Woodforde, London—equal (75).

SECOND-CLASS HONOURS.—Matthew Bruce, Edinburgh; and John Noble, Mid-Lothian—equal (74); S. B. Burns, Edinburgh; and James Kerr, Dumfries—equal (73); Gerrit Nieuwoudt, Cape Colony; and A. Scott Purves, Sutherlandshire—equal (72); Duncan Menzies, Perthshire (71); D. F. Gardiner, Perthshire (70); R. A. Brewis, Edinburgh; and W. O. Dow, Dunfermline—equal (69); A. Langschmidt, Cape Colony; and Geo. Miller, Arbroath—equal (68); G. T. Broatch, Kirkcudbrightshire; and E. D. Wellburn, Scarborough—equal (67); R. L. Clark, Ayrshire (66); Samuel Beattie, Co. Antrim; W. G. Galletly, Edinburgh; John Grant, Carrbridge; and M. G. Pareira, Demerara—equal (62); James A. Blair, Stratton (61); R. M. Robertson, Perthshire (60); J. H. Ferguson, Edinburgh; and A. Maclennan, Inverness—equal (58); J. B. Roberts, Lancashire (57); R. J. Paton, Mhow (54).

STUDENTS OF THE SECOND YEAR.

FIRST-CLASS HONOURS.—Harold J. Stiles, Lincolnshire, *Medallist* (90); M. S. Altounian, Bithynia (80); R. S. Coulthard, Bath, (77).

SECOND-CLASS HONOURS.—Thomas Johnstone, Lochmaben (61); Frederick Bond, Accrington (60); John Rigg, Lancashire (54); A. Macqueen, Birmingham (50).

STUDENTS OF THE FIRST YEAR.

FIRST-CLASS HONOURS.—R. F. C. Leith, M.A., London (96); W. H. Turton, Derbyshire (90); F. T. King, New Zealand; J. C. Lamont, Liverpool; and W. H. M'Lean, New Zealand—equal (86), *Medallists;* William Elder, Lanarkshire; A. Macleod Ross, Peterborough; and J. C. Vaughan, India—equal (85); G. V. Gilray, Edinburgh; D. M. Moir, India; and T. J. Pritchard, East Retford—equal (84); R. B. Wallace, Kendal (83); W. E. Thomas, N. Wales (82); F. G. Clemow, London (81); W. G. Sym, Edinburgh (80); Wm. Craig, Dumfriesshire; Joseph Griffiths, S. Wales; John M. Nicoll, Caithness; and John W. Smith, Lancaster—equal (79); G. L. Gulland, M.A., Edinburgh; D. G. Marshall, Shrewsbury; Robert S. Morrison, Galashiels; and E. T. Pritchard, Hereford—equal (78); Gerard A. Scott, Edinburgh (77); K. M. Douglas, Edinburgh; Alexander Fisher, Edinburgh; Edwin S. Fry, Chelmsford; W. Gregory Gibson,

Campbeltown; and Allan E. L. Gray, Sunderland—equal (76); W. E. Begbie, Edinburgh; E. E. Pringle, Aberdeenshire; H. Scurfield, Sunderland; and F. C. Thorp, India—equal (75).

SECOND-CLASS HONOURS.—James A. Guthrie, Staffordshire (74); John Ross, Perth; and D. W. Scotland, India—equal (73); Geo. Anderson, Leith; R. C. MacWatt, Dunse; and A. D. Wilson, Dunfermline—equal (72); William A. Anderson, Ulverston; and J. G. Glover, Glasgow—equal (71); John Garvie, Perth (70); C. G. Matthew, Perthshire; and Fred. C. Roberts, Manchester—equal (69); F. W. Collinson, Alnwick; J. J. Hoffman, Cape Colony; and D. C. A. MacAllum, India—equal (68); David M. Greig, Dundee; and Wm. R. Nasmyth, Fifeshire—equal (67); Geo. P. Boddie, Aberdeen; John A. S. Brown, Dunipace; and Robert H. Mitchell, Bolton—equal (66); C. H. Waters, Edinburgh (65); John F. Farrar, Halifax (64); T. H. Griffith, Barbados; T. P. Gray, Airdrie; C. H. W. King, Canada; John M'Jerrow, Annan; and Ernest Roberton, Edinburgh—equal (63); W. H. E. Knaggs, Cape Colony; and John White, Easdale—equal (60); S. Frazer Clark, Penang; A. Fahmy, Alexandria; Charles W. Gray, Glasgow; G. Ozanne, Jackson; John G. Rocha, Rio Janeiro; and J. W. Travell, Nottingham—equal (59); William J. Cameron, Newburgh; Arthur Drury, Halifax; Lewis G. Fischer, Isle of Wight; Wm. Mackay, Inverness; and E. R. Woodhouse, Stafford—equal (58); J. R. Hill, Demerara; and C. H. Melville, Bengal—equal (57); A. J. Cross, Birmingham (56); Cumberland Hill, Edinburgh; and M. G. Oliver, N. Wales—equal (55); James Graham, Lockerbie; Donald M. Maclachlan, Tobermory; William F. Menzies, Montreal; and Charles J. Morton, Edinburgh—equal (54); Thomas H. Gee, England (53); David Macnish, Lochmaben (52); Alex. M. Gray, Forfarshire; and L. G. Wynn, Dumfries—equal (51); Geo. D. Macintosh, Sutherlandshire; Andrew W. Nash, N. S. Wales; W. R. Taylor, Linlithgowshire; and John Warnock, Victoria—equal (50).

The Senior Mackenzie Bursary was awarded to Wm. Miller, Calcutta. Special certificates of proficiency in practical work were awarded to B. G. Brock, Caithness; A. S. Cumming, Edinburgh; F. L. Mackenzie, St Andrews; T. R. Rait, Dundee; G. Nieuwoudt, Cape Colony; F. G. Retief, Cape Colony; Walter Petter, Barnstaple; C. H. Jones, Baltimore; T. S. Wilson, Birmingham; Geo. Mackay, Inverness; J. F. Barrie, Dalkeith.

The Junior Mackenzie Bursary was awarded to J. C. Vaughan, India; and J. W. Smith, Lancaster. Special certificates of proficiency in practical work were granted to A. M. Ross, Peterborough; H. M. Smellie, Stranraer; G. P. Smith, Hamburg; J. T. Thomson, Settle; H. L. Roberts, Manchester; F. C. Roberts, Manchester; D. G. Marshall, Shrewsbury; T. H. Gee, England.

The Senior John Aitken Carlyle Bursary has been divided between M. Altounian, Bithynia; and H. J. Stiles, Lincolnshire.

The Junior John Aitken Carlyle Bursary in Anatomy and Chemistry was awarded to J. C. Lamont, Liverpool.

The following gentlemen acted as Prosectors to the class:—C. E. Paterson, Berwickshire; John Cunninghame, Dunedin, N.Z.; Edwin Baily, London; T. W. Dewar, Edinburgh.

W. TURNER, *Professor.*

V.—SURGERY.

SENIOR DIVISION.

Frederick Ashwell, Bedford (95 per cent)., *University Medal, 1st Prize, and First-Class Honours;* William Hunter, Birkenhead (91), *University Medal, 2d Prize, and First-Class Honours;* Arthur King, Norwich (88), *University Medal, 3d Prize, and First-Class Honours;* George J. H. Belt, Shetland (85), *4th Prize and First-Class Honours;* Richard Humphreys, North Wales, *5th Prize and First-Class Honours;* and C. Harper Bourne, B.A., Barbados (84), equal, *5th Prize and First-Class Honours.*

FIRST-CLASS HONOURS.—Granville Jameson, Lancashire (82 per cent.); Joseph Stapleton, Victoria (80); Ernest F. Neve, Brighton; and J. R. Bailey, Durham—equal (76); John Anderson, Rosewell; S. George Campbell, Natal; George Irving, M.A., Dumfriesshire; J. G. Wallace-James, India; and William Grant M'Pherson, Ross-shire—equal (75).

SECOND-CLASS HONOURS.—A. S. Bowman, Sydney, N.S.W.; John Bowie, Edinburgh; T. Duncan Greenlees, Kilmarnock; and Lawson Gifford, Jamaica—equal (73 per cent.); Joseph S. Bolton, Oxon; George Manook, India; and David Smart, Perthshire—equal (71); Harry Fletcher, Lancashire; Rivis Mead, Whitby, Yorkshire; and Ralph Stockman, Leith—equal (70); John B. Nash, N.S.W.; and R. W. Philip, M.A., Edinburgh—equal (69); Arthur C. Keep, Wollaston (68); M. H. Gardiner, Campbelton; A. G. Richardson, South Wales; and Wm. Younan, Calcutta—equal (67); Percy B. Bury, St Loes, Hants; and R. J. Shaw Simpson, M.A., Broughty Ferry—equal (66); H. M'L. Wilson, Crieff (65); R. S. Aitchison, Edinburgh; John Griffin and William Wilson—equal (64); Edwin Douglas, Edinburgh; William Alexander Mackay, Lybster; and G. Arbuthnot van Someren, Dollar—equal (63); George Kerr, Dumbartonshire; and William Skinner, Ross-shire—equal (61); J. A. Myrtle, Edinburgh; and Charles Stein, Edinburgh—equal (60).

JUNIOR DIVISION.

J. N. Stark, Edinburgh, and William Taylor, Windermere—equal (93 per cent.), *University Medal, 1st Prize, and First-Class Honours;*

Ernest Wilcox, St Neots (77), *University Medal, 3d Prize, and First-Class Honours;* David Walker, Forfarshire, and Paul Bowes, Dundee—equal (76), *4th Prize, and First-Class Honours,*

FIRST-CLASS HONOURS.—Duncan M'Diarmid, Argyllshire, and Norman M'Kie, Kirkcudbright—equal (75 per cent.)

SECOND-CLASS HONOURS.—John M. Stormonth, Edinburgh (66 per cent.); David Mowat, Stirling (66); Thomas W. Bell, New Zealand (63); F. G. Greenbury, Yorkshire (62); Daniel Davies Jones, Wales (61); John Robertson, Wiltshire (61); John M'Gibbon, Edinburgh (60) Angus Mathieson, Ullapool (58); James M'Diarmid, Argyllshire (57); Thomas Johnstone, M.A., Lochmaben (57); B. E. Jastrzebski (53); John M'Myn, Kirkcudbrightshire (50).

JAMES SPENCE, *Professor.*

VI.—MATERIA MEDICA AND THERAPEUTICS.

FIRST-CLASS HONOURS.—Robert M. Brown, Edinburgh (93 per cent.); Donald Paterson, Inverness (88·5); G. Nieuwoudt, South Africa (84·5); George F. Alexander, Banff (82·5); George Fisher, Orkney (81·5); John Stevens, M.A., Bridge of Earn (81)—*Medallists*; Archibald Donald, M.A., Edinburgh (80·5); E. Greenough, Yorkshire (80); Arthur Robinson, Manchester (79·5); James M. Caw, Fifeshire (79); J. Hutson, B.A., Barbados, W.I., and James Kerr, Dumfries—equal (78·5); Horace Cocks, Norfolk, and Arthur J. Stiles, Spalding—equal (77); A. C. Younan, Calcutta (76·5); W. B. Gowans, Perth (76); Arthur Fuller, Cape Town (75·5); William Cumming, Montrose, and John M'Lauchlan, Aberdeen—equal (75).

SECOND-CLASS HONOURS.—Thomas E. Dyson, Yorkshire (74 per cent.); D. K. Keith, Arbroath, and James Stewart, Dalkeith—equal (73·5); David G. Donaldson, Methven (72); Wm. Cotton, Edinburgh (71); Wm. L. Price, India (70); David J. Galloway, Edinburgh (69·5); T. Kennedy Dalziel, Dumfries, and George Park, M.A., Brooklyn, U.S.A.—equal (68); Gustave Nicolet, Belgium (66·5); T. L. K. Davis, Liverpool (66); Theodore H. Barker, Sydney, N.S.W., and George Hewlett, Louth—equal (65·5); James Macpherson, Invercargill, New Zealand (64); Geo. Miller, Arbroath (62·5); John Walther, London (62); Jas. Craig, Castle-Douglas (59·5); George S. Cardew, Lucknow (59); Robert S. Thornton, Edinburgh, and Theodore S. Wilson, Birmingham—equal (56·5); A. Ogier Ward, London (55); L. R. Gray, Dalkeith (54·5); Alex. C. Miller, Fort-William (53·5); Matthew Bruce, Edinburgh (51); Duncan F. Gardiner, Perthshire (50·5); E. H. Warner, Winchester (50).

PRACTICAL MATERIA MEDICA AND PHARMACY.

Summer Session, 1881.—junior class.

First Class Honours.—William B. Gowans, Perth, 90; G. Nieuwoudt, Cape of Good Hope, 85; and Thomas Rhodes, Preston, 84 (*Medals*); George Fisher, Orkney, 83; James Bell, Dumfries, and David G. Donaldson, Methven, 80—equal; James Craig, Castle-Douglas, 78; Robert M. Brown, Edinburgh, and Alexander C. Miller, Fort-William, 77—equal.

Second Class Honours.—James S. M'Cracken, Northumberland, 70; John Cunninghame, Dunedin, N.Z.; P. Proudfoot, Perth; and F. G. Retief, Cape of Good Hope, 68—equal; Alex. Davidson, Aberdeenshire; Duncan F. Gardiner, Perthshire; Charles H. Jones, Baltimore, U.S.A.; and John Stevens, M.A., Bridge of Earn, 65—equal; J. Haig Ferguson, Edinburgh, 63; John Macdonald, Tobermory, 62; W. E. Porter, London, 59; Benjamin Griffiths, Carmarthenshire, 57; A. Scott Purves, Sutherlandshire, and James Macpherson, Carnoustie, 55—equal.

senior class.

First Class Honours.—William Duff, Aberdeen, and Arthur C. Younan, Calcutta, 82—equal; W. F. Grant, Calcutta, 76.

Second Class Honours.—Richard Jander, Hamburgh, 67.

THOMAS R. FRASER, M.D., *Professor.*

VII.—MEDICAL JURISPRUDENCE.

Summer Session, 1881.

Bronze Medals of the University.—1. Geo. Cecil Dickson, Carnoustie, 82·5 per cent.; 2. A. Thomson Sloan, Edinburgh, 80·5; 3. W. Winslow Hall, Madras, 80.

Honours of the First Class.—4. R. W. Philip, M.A., Glasgow, 75·5 per cent.

Honours of the Second Class.—5. John Cram, Dollar, 74 per cent.; 6. Geo. Steele Perkins, M.R.C.S. Exeter, 74; 7. Ralph Stockman, Leith, 73·5; 8. Geo. Keppie Paterson, Edinburgh, 73; 9. Hector M'Lean Wilson, Forgandenny, 70; 10. G. A. van Soemeren, Dollar, 68·5; 11. Philip B. Cousland, Glasgow, 68; 12. Robert Mackinlay, Musselburgh, 68; 13. G. V. Rohan, Mauritius, 68; 14. T. Arthur Helme, Lancaster, 66; 15. A. F. Mackenzie, Beauly, 66; 16. A. K. Mill, Kirriemuir, 66; 17. Duncan Menzies, Aberfeldy, 65; 18. William Younan, Calcutta, 65; 19. R. T. Sutherland, Natal, 64·5; 20. Geo. C. Purvis, India, 63; 21. Edward R. Harriott, Jamaica, 58·5; 22. M. W. Gutteridge, Leicester, 58; 23. Patrick H. Belt, Aberfeldy, 57·5.

DOUGLAS MACLAGAN, M.D., *Professor.*

VIII.—INSTITUTES OF MEDICINE.

SENIOR DIVISION.

First-Class Honours.—G. F. Alexander, Banff, and A. M. Paterson, Manchester—equal (93)—*Medals;* J. Stevens, M.A., Bridge of Earn (90); A. Fuller, Cape Town (87); A. G. Paterson, M.A., Brazil (84); G. Nieuwoudt, Cape Colony (81); W. T. Prout, Mauritius (80); Arthur Robinson, Manchester (78); Charles H. Jones, Baltimore; and J. S. M'Laren, M.A., Edinburgh—equal (77); P. J. Baily, London; G. T. Broatch, Kirkcudbright; and W. Petter, Barnstaple—equal (76); G. Mackay, Madras, and S. Partridge—equal (75).

Second-Class Honours.—A. T. Dochard, Airdrie (74); L. G. Smith, Cheshire, and W. Cotton, M.A., Edinburgh—equal (73); M. A. Ker, Edinburgh (70); T. A. Helme, Lancaster (69); A. Donald, M.A., Edinburgh (68); C. G. Traill, New South Wales (66); J. T. Wilson, Dumfriesshire (65); P. Yates, Bolton (64); J. H. Brown, York, and R. R. Giddings—equal (62); G. S. Cardew, Lucknow (60); E. A. Chill, British Burmah; T. W. Gill, Lanarkshire; and R. Vassie, Lanarkshire—equal (59); C. J. Macalister, Liverpool, and J. Stewart, Dalkeith—equal (58); Chisholm Ross, Australia (56); J. Barrie, Edinburgh (53); R. M. Robertson, Perthshire (51).

JUNIOR DIVISION.

First-Class Honours.—D. R. Dow, Dundee (*Medal*), 87 per cent.; M. S. Altounian, Bithynia (*Medal*), 84; F. W. Simmons, Cheltenham (*Medal*), 83; J. Rigg, Preston, (*Medal*), 81; P. Bowes, Dundee, and J. Rattray, M.A., Dunkeld—equal, 78; H. J. Stiles, Lincolnshire, 75.

Second-Class Honours.—A. F. Davenport, Tasmania, 73; W. H. M'Lean, New Zealand, 72; F. Greenbury, Hull, 70; B. E. Jastrzebski, Halifax, 68; J. R. Henderson, Roxburgh, and W. R. M'Kinnel, Kirkcudbrightshire—equal, 67; F. B. O'Flaherty, Constantinople, 65; J. H. Neale, Leicester, 65; A. M. Adams, Lanark, and G. Thomson, Dumfries, equal, 62; J. M'Myn, Wigtownshire, 61; J. M. Cadell, Linlithgowshire, 60; R. Bowman, Sydney, New South Wales; J. G. Cossins, Sicily; W. S. Lang, Renfrewshire, and W. Taylor, Kendal—equal, 59; A. Macqueen, Birmingham, and W. Van der Merwe, South Africa—equal, 57; D. J. Mason, Blairgowrie, 56; A. Matheson, Ullapool, 54; T. Johnston, Lochmaben, and R. J. Burns, Hampstead—equal, 53; G. H. Kenyon, Yorkshire, 52; F. W. Mackenzie, New Zealand, 51; J. C. Taylor, Kendal, and A. Menzies, Edinburgh—equal, 50.

PRACTICAL PHYSIOLOGY.

Summer Session, 1881.

Donald Paterson, Inverness, 86; G. Fisher, Orkney, 84; William Cotton, Edinburgh, and J. H. Brown, Selby, 83—equal; D. K. Keith, Arbroath, 82; Geo. Irving, Dumfriesshire, 77; John Stevens, Bridge of Earn, 75; John Rattray, Tungarth, 73; William Duff, Aberdeen; Robert M. Brown, Edinburgh; Alex. P. Drummond, Edinburgh; and A. L. F. Robertson, Lanarkshire, 72—equal; George Thomson, Dumfries, 71; C. H. Jones, Baltimore, and William Petter, Barnstaple, 70—equal; George Mackay, Madras; J. Cunninghame, Dunedin, N.Z.; and B. H. Nicholson, Wigtownshire, 67—equal; James Craig, Castle-Douglas, and A. C. Younan, Calcutta, 66—equal; James M'Cracken, Northumberland, and Thomas Rhodes, Preston, 65—equal; G. Cardew, Lucknow, 61; James Shaw Maclaren, Edinburgh, 60; Alex. Geo. Fraser, Aberdeen; D. G. Donaldson, Methven, and J. H. Ferguson, Edinburgh, 58—equal; D. F. Gardiner, Perthshire, 56; C. F. Maclaren, Berwick-on-Tweed, 52; G. F. Broatch, Kirkcudbright, and Arch. Campbell, Perth, 50—equal.

Winter Session, 1881-82.

First-Class Honours.—James Kerr, Dumfries, 87 per cent. (*Medal*); G. R. Smuts, Cape Colony, 77.

Second-Class Honours.—F. Mackinnon, Fortrose, and G. P. Nicolet, Belgium—equal, 70; F. Godfrey, Australia, 67; A. Aikman, St Andrews, 63; J. Grant, Carrbridge, 62; F. Greenbury, Hull, and R. S. Thornton, Edinburgh—equal, 56; B. Griffiths, Carmarthenshire, 55.

WILLIAM RUTHERFORD, M.D., *Professor.*

IX.—PRACTICE OF PHYSIC.

Senior Division.

First-Class Honours.—John Bowie, Edinburgh, 95·5 per cent.; G. Cecil Dickson, Carnoustie, 85; Ralph Stockman, Leith, 83 (*Medals*); Earnest E. Maddox, Oxfordshire, 82·5; Allen Thomson Sloan, Edinburgh, 81·5; Walter Oliphant Walker, West Calder, 81; John W. Johnston, Edinburgh, 80·5; D. Noel Paton, Edinburgh, 79·5; Peter Baillie, Inverness, 78; W. W. Herbert, South Wales, 77·5; George Keppie Paterson, Edinburgh, 77; Arthur Rowley Moody, Staffordshire, 75.

Second-Class Honours.—Edward Orr Macniven, Luss, and Arthur King, Norwich—equal, 73·5 per cent.; Harry J. Fletcher, Lancashire, 72; Minas M. Basil, Ispahan, 71·5; Herbert H. Ashdown, Northampton, 70·5; W. Younan, Calcutta, 70; Thomas

C. Johnson, Yorkshire, 68; George C. Purvis, India, 67·5; Percy B. Bury, St Ives, 67; John Whitaker, Lancashire, 66·5; R. S. Leslie, Cheltenham, 66; J. Carl Voigt, Cape of Good Hope, 64·5; George Manook, Dacca, 62·5; Thomas Gillison, Stirlingshire, 61; John Johnston, Lanark, 65; John Grant, Rothes, 58·5; R. H. Rosenzweig, Cape of Good Hope, and William Skinner, Ross-shire —equal, 57·5; J. G. Wallace James, India, 56·5; David Treharne, South Wales, 56; J. Hutchison, Elie, 54; Wm. Davidson, Lanarkshire, 51·5; Thomson Bonar, Edinburgh, 50·5.

JUNIOR DIVISION.

First-Class Honours.—W. B. Macdonald, Edinburgh, 86; Robert W. Philip, M.A., Edinburgh, 84; Frederick Ashwell, Bedford, 80·5; Harold Fuller, Watkins, Brentford, 79 (*Medals*); William Hunter, Birkenhead, 78; William Grant Macpherson, M.A., Ross-shire, 76; Archibald K. Christie, Arbirlot, William Gay, Bath; R. Mackinlay, Musselburgh; and George J. Young, M.A., Berwick—equal, 75·5; T. R. Bailey, Durham; Charles J. Mouncey, Lancashire; and David Smart, Perthshire—equal, 75.

Second-Class Honours.—Joseph Stapleton, Victoria 73·5 per cent.; William F. Grant, Calcutta; A. King Mill, Kirriemuir; Ernest F. Neve, Brighton; James R. Stevenson, Melrose; and Ernest Wilcox, St Neots—equal, 73; George Burn-Murdoch, Edinburgh; Selby H. Henderson, Berwickshire; Granville Jameson, Lancashire; and John B. Nash, New South Wales—equal, 72·5; Henry A. Dumat, Mauritius, 72; George Brook French, Bengal, and Percival B. Le Franc, Calcutta—equal, 71·5; A. W. Munro, Tain, 71; E. H. L. Oliphant, Pau, 70·5; W. H. Dutton, Melbourne, and R. J. Shaw Simpson, M.A., Broughty Ferry—equal, 69·5; George J. H. Bell, Shetland, and A. Stuart Bowman, Sydney—equal, 68·5; Allan MacFadyen, Glasgow, and G. Arbuthnot Van Someren, Dollar—equal, 68; Edward H. Morgenrood, Cape of Good Hope, and Francis W. Sinclair, Edinburgh—equal, 66·5; Hector M'Lean Wilson, Crieff, 66; John Cram, Dollar; John Craig, Kirkcudbrightshire; and Cecil A. Lane, India— equal, 65; Lawson Gifford, Jamaica; Arthur C. Keep, Wollaston; and R. Mead, Whitby—equal, 64·5; T. A. Fraser, Sandgate, 63·5; S. F. Gutheridge, Falmouth, and Robert Hardie, Edinburgh—equal, 63: Joseph S. Bolton, Oxford, 62·5; Clement Bryce Gunn, Edinburgh, 62: Lynden H. Bell, Cork, 61; Philip B. Cousland, Glasgow, 60·5; Augustus A. Matheson, Inverness-shire, 59·5; W. Hall Calvert, North Berwick; Richard Humphreys, North Wales; Thomas Philip, Kennoway; and R. A. Williams, Carnarvon—equal, 59; James Graham, M.A., Edinburgh, and John Griffin, Southampton—equal, 58; Donald Macgregor, M.A., Inverness, 57; Henry St G. Boswell, India, 56·5; Charles Stein, Edinburgh, 56; Joseph O. Closs, Glasgow, 55·5; Alfred P. Hillier, Glouces-

tershire, 55; James A. Myrtle, Harrowgate, 54·5; E. Fraser, Portsmouth, and Alexander O. C. Watson, Bombay—equal, 53; M. H. Gardiner, Campbeltown, 51·5; Thomas M. Lyon, Ayr, 51; Charles W. Jones, Manchester, 50·5; C. W. Johnson, Agra; R. Musgrave Whitham, Padeham; and Thomas Wood, Newburgh—equal, 50.

T. GRAINGER STEWART, M.D., *Professor.*

X.—MIDWIFERY.

SENIOR DIVISION.

FIRST-CLASS HONOURS.—1. G. A. Atkinson, Northumberland, 85 per cent.—*Medal and First Prize;* 2. G. A. Van Someren, India, 75—*Medal and Second Prize.*

SECOND-CLASS HONOURS.—3. J. C. Voigt, South Africa, 71; 4. W. Younan, Calcutta, 70; 5. Kismet, 69; 6. George Manook, India, 60.

JUNIOR DIVISION.

FIRST-CLASS HONOURS.—David Smart, Meigle, 90 per cent.—*Medal and First Prize;* Fred. Ashwell, Bedford, 88—*Medal and Second Prize;* A. K. Mill, Kirriemuir, 86·5—*Medal and Third Prize;* John W. Ballantyne, Dalkeith, 85—*Medal and Fourth Prize;* J. Stapleton, Victoria; R. W. Philip, M.A., Edinburgh; and Wm. Hunter, Birkenhead—equal, 84·1; W. G. Macpherson, M.A., Ross-shire, 81·6; Ernest F. Neve, Sussex, 81; John Liddel, Edinburgh; Chas. Stein, Edinburgh; and F. W. Haultain, Edinburgh—equal, 80; R. Stockman, Leith, 79·5; G. E. Maddox, Oxfordshire; John Craig, Kirkcudbright; and T. A. Fraser, Kent—equal, 79; D. Noel Paton, Edinburgh, 78·5; H. F. Watkins, Middlesex, 78; S. G. Campbell, Natal, and John Bowie, Edinburgh—equal, 77·5; A. P. Hillier, Gloucestershire; G. S. Bolton, Oxon; G. J. Young, M.A., Berwick; and C. H. Bourne, B.A., Barbados—equal, 76; T. R. Bailey, Durham; W. O. Walker, West Calder; W. H. Calvert, North Berwick; J. B. Nash, N. S. Wales; and George Irving, Dumfries—equal, 75.

SECOND-CLASS HONOURS.—G. C. Purves, India, and Archibald Mackenzie, Natal—equal, 73 per cent.; A. G. Richardson, South Wales, and A. S. Bowman, Sydney, 72·5; James Graham, Edinburgh, and G. Burn Murdoch, Edinburgh—equal, 72; Allan MacFadyen, Glasgow, and J. R. Dobbie, Thornhill—equal, 71·5; H. H. Ashdown, Northampton, and R. Mackinlay, Musselburgh—equal, 71; H. A. Dumat, Mauritius, 70; H. M. Wilson, Crieff, 68·5; and P. B. Cousland, Glasgow—equal, 67; J. E. Godfrey, Demerara; Granville Jameson, Lancashire; and W. B. MacDonald, Edinburgh—equal, 66·5; T. C. Meggison, Berwick-on-Tweed, 66; F. W. Sinclair, Edinburgh; E. H. Morgenrood,

Cape of Good Hope; G. B. French, Bengal; and T. D. Greenlees, Kilmarnock—equal, 65; J. O. Closs, Glasgow, 64; R. A. Williams, Carnarvon, 63; Adam MacVie, Ayrshire, 61·5; T. K. Hill, Lancashire, 61; G. D. Logan, Ross-shire, 60; William Porteous, Edinburgh, 58·5; and E. Frew, 57; F. P. Marais, Cape of Good Hope, 56·5; E. Fordyce, Berwickshire, 56; R. Humphreys, North Wales, 55·1; Ernest Wilcox, St Neots, 53; Thomas Wood, Bareilly, and A. H. H. Watson—equal, 52·5; Thomas Gillison, Stirlingshire, 51; Thomson Bonar, Edinburgh; G. Nelson, Bawtry; and W. A. Mackay, Lybster—equal, 50.

OPERATIVE MIDWIFERY AND GYNECOLOGY.

SUMMER SESSION, 1881.

FIRST CLASS HONOURS.—T. Hewetson, Cumberland, and W. T. Sinclair, Kirkwall, 98—equal—*Medals and Prizes;* J. M. Hoffman, S. Africa, 80.

A. R. SIMPSON, M.D., *Professor.*

XI.—GENERAL PATHOLOGY.

SENIOR DIVISION.

FIRST-CLASS HONOURS.—1. Arthur J. Stiles, *Medal*, 83 per cent.; 2. J. Cowan M'Clew, 77; 3. J. A. J. Murray, 75.

SECOND-CLASS HONOURS.—4. James R. Stevenson, 73; 5. A. Ogier Ward, 67; 6. Robert Mackenzie, 65; 7. R. P. Mitchell, 58; 8. W. H. Weston, 54; 9. John Davies and Thomas B. Darling—equal, 51; 11. Robert Inch, 50.

JUNIOR DIVISION.

FIRST-CLASS HONOURS.—1. Robert M. Brown, *Medal*, 94 per cent.; 2. Wm. Duff, *Medal*, 93; 3. Gerrit Nieuwoudt, *Medal*, 90; 4. A. C. Younan, *Medal*, 89; 5. Geo. Fisher, *Medal*, 88; 6. C. H. Eyles, *Medal*, 87; 7. G. F. Alexander and Wm. B. Gowans—equal, 86; 9. John Stevens, M.A., 85; 10. Wm. Cotton, 84; 11. E. Greenough, 82; 12. James Kerr, 81; 13. T. Arthur Helme and Donald Paterson—equal, 80; 15. Horace Cocks, 79; 16. Wm. Cumming and Richard Vassie—equal, 78; 18. Archibald Donald, Arthur Fuller, and Wm. L. Price—equal, 77; 21. A. T. Dochard, 76; 22. T. E. Dyson, 75; 23. Percy J. Baily, Jas. Craig, and John M'Lachlan—equal, 74; 26. Theo. S. Barker, George Hewlett, Arthur Robinson, and James Stewart—equal, 73; 30. John Hutson, and U. N. Mukerji—equal, 71; 32. George S. Cardew, Thomas Rhodes, and James T. Wilson—equal, 70; W. Murray Leslie, 69; J. M. Caw, 68; A. Gordon Paterson, 67; T. Kennedy Dalziel, D. K. Keith, and Walter Petter—equal, 66; Robert R. Giddings and Wm. H. Miller—equal, 65; Fred. W. G. Hall and

Robert S. Thornton—equal, 64; David G. Donaldson and Theo. S. Wilson—equal, 63; Alfred A. Aikman and Gustave Nicolet—equal, 62; Alex. G. Fraser, M.A., and O. Pughe-Owen—equal, 61; E. Baily, Sydney A. Comber, and James Macpherson—equal, 60; James A. Blair, Edwin A. Chill, George Mackay, A. L. F. Robertson—equal, 59; Frank Mackinnon and Wm. T. Prout—equal, 58; J. Headley Neale, 57; James Haig Ferguson, 56; E. H. Warner, 55; Frank Godfrey, 53; C. H. Jones and James B. Wilkinson—equal, 52; James Paterson, 51; T. L. K. Davies and Sydney R. Woodforde—equal, 50.

PRACTICAL PATHOLOGY.

Summer Session, 1881.—senior division.

First Class Honours.—P. D. Villiers Moll, 86 per cent. (*Medal*).

Second Class Honours.—Archibald Mackenzie, 73; Geo. Irving, M.A., 71; A. Ross Fraser, 53.

junior division.

First Class Honours.—Jas. S. M'Cracken, 86 per cent.; William Duff, 84; and W. B. Gowans, 84—(*Medals*); A. C. Younan, 83; R. Hardie, 80; John G. Jordan, 78; James Craig, 77; A. P. Drummond, 76; J. Haig Ferguson, 75.

Second Class Honours.—T. Arthur Helme, 74; Alex. Bissett, 73; A. Macvie, 73; M. M. Basil, 72; Walter Petter, 72; D. K. Keith, 72; Donald Paterson, 67; B. H. Nicholson, 66; Wm. Cotton, M.A., 64; John Cunninghame, 64; W. F. Macdonald, 60; G. T. Broatch, 59; David G. Donaldson, 59; Alex. G. Fraser, 59; Duncan F. Gardiner, 58; F. G. Connor, 57; James Dalgleish, 57; Elias Fraser, 57; W. L. Price, 55; Herbert MacAndrew, 53; P. B. Handyside, 50.

The following gentlemen, present at two of the three examinations, obtained certificates:—*Senior*—A. J. Neale, 67 per cent.; *Junior*—James T. Wilson, 82 per cent.

winter session, 1881-82.

First-Class Honours.—F. W. Matheson, 83 per cent.; Robert M. Brown, 82; Horace Cocks, 81; J. Headley Neale, 79; Geo. Fisher and A. A. Matheson—equal, 78.

Second-Class Honours.—James Macpherson, 70; Alfred A. Aikman, 68; Arthur Fuller, 56.

W. S. GREENFIELD, M.D., *Professor.*

XII. CLINICAL SURGERY.

Medals and First-Class Certificates.—C. E. Paterson, Berwickshire, 92 per cent.; W. B. Gowans, Perth, 91; John Simp-

son, Loanhead, 89; S. H. Henderson, Berwickshire, and James Graham, M.A., Edinburgh—equal, 87.

First-Class Certificates.—C. G. Irving, M.A., Dumfriesshire; A. C. Miller, Fort-William; and Donald Paterson, Inverness—equal, 86; J. E. Dyson, Yorkshire, 84; G. F. Gutheridge, Falmouth, 83; A. C. Younan, Calcutta; D. J. Galloway, Edinburgh; and John Grant, Carr Bridge—equal, 82; Wm. Cotton, M.A., Edinburgh, and J. H. Barber, Sydney—equal, 81; D. G. Donaldson, Methven, 80; George Fisher, Orkney, and T. K. Dalziel, Dumfries—equal, 79; William Cumming, Montrose, and J. N. Starke, Edinburgh—equal, 78; James Kerr, Dumfries; D. Drummond, Perthshire; and George Park, Brooklyn, U.S.A.—equal, 77; Alexander Valentine, Stonehaven, and James Craig, Castle-Douglas—equal, 76.

Second-Class Certificates.—J. L. K. Davies, Liverpool, 74; J. B. Wilkinson, Godmanchester, 72; G. J. Broatch, Kirkcudbright; Horace Cocks, Norfolk; and Charles Brown, Dunblane—equal, 71; Walter Petter, Barnstaple; W. F. Macdonald, Perthshire; and W. A. Holmes, Kendal—equal, 70; John Johnston, Lanark, and J. Wright Grant, Grantown—equal, 69; John Stevens, M.A., Mains of Kilgraston; Wm. Sneddon, Fifeshire; R. Wyatt Jamie, M.A., Kincardineshire; and A. W. G. Price, India—equal, 68; John S. M'Laren, M.A., Edinburgh, and W. Van der Merwe, Cape Colony—equal, 67; A. L. F. Robertson, Lanark, 66; D. K. Keith, Arbroath, and J. A. Blair, Straiton—equal, 64; J. A. Murray, New Zealand, 63; W. E. Porter, London, 62; Thomas Duncan, Kinross, 61; J. H. Brown, Selby, and J. H. Neale, Leicestershire—equal, 60; D. F. Gardiner, Perthshire, and A. G. Fraser, M.A., Aberdeen—equal, 59; R. S. Miller, Shotts, 58; M. Bruce, Edinburgh, 57; E. Portal, Mauritius, 56; J. Osborne Closs, Glasgow, 54; George Thomson, Berwickshire, 53; J. Rowland Ellis, North Wales, 50; A. M. Adams, Lanark, 52; John Macdonald, Tobermory, 50.

THOMAS ANNANDALE, M.D., *Professor.*

XIII.—MENTAL DISEASES.

Summer Session, 1881.

John Waugh, 93 per cent. (*Medal*); David Welsh, 84; and George Wilson, 77 (*First Class Certificates*); C. Cochrane Dickson, 66; and A. Harrison Thomas, 60 (*Second Class Certificates*).

T. S. CLOUSTON, M.D., *Lecturer.*

Examination Questions

FOR DEGREES IN ARTS, DIVINITY, LAW, MEDICINE, AND SCIENCE, IN 1881-82.

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I.—DEGREES IN ARTS.

EXAMINATION FOR CURRICULUM OF THREE SESSIONS AND FOR OPEN BURSARIES.

LATIN.

Saturday, 22d October 1881.—9 *to* 12 *o'clock.*

1. *Translate into Latin :—*

The safety of his soldiers, he said, and the honour of their country, were in their own hands ; defeated, they had no hope and no retreat ; conquerors, the glory of victory and the spoils of England lay before them. But of victory there could be no doubt : God would fight for those who fought for the righteous cause, and what people could ever withstand the Normans in war? They were the descendants of the men who had won Neustria from the Franks, and who had reduced Frankish kings to submit to the most humiliating of treaties. Were they to yield to the felon English, never renowned in war, whose country had been over and over again harried and subdued by the invading Dane? Let them lift up their banners and march on ; let them spare no man in the hostile ranks ; they were marching on to certain victory, and the fame of their exploits would resound from one end of heaven to the other.

2. *Translate into English :—*

Ineunt tandem magistratus tribuni plebis : contio tandem [*est*] exspectata P. Rulli, quod et princeps erat agrariae legis et truculentius se gerebat quam ceteri. Iam designatus alio vultu, alio vocis sono, alio incessu esse meditabatur, vestitu obsoletiore, corpore inculto et horrido, capillatior quam ante barbaque maiore, ut oculis et aspectu denuntiare omnibus vim tribuniciam et minitari rei publicae videretur. Legem hominis contionemque exspectabam. Lex initio nulla proponitur : contionem in primis advocari iubet ; summa cum exspectatione concur-

ritur. Explicat orationem sane longam et verbis valde bonis. Unum erat quod mihi vitiosum videbatur, quod tanta ex frequentia inveniri nemo potuit qui intelligere posset quid diceret. Hoc ille utrum insidiarum causa fecerit an hoc genere eloquentiae delectetur nescio. Tamen, si qui acutiores in contione steterant, de lege agraria nescio quid voluisse eum dicere suspicabantur. Aliquando tandem, me designato, lex in publicum proponitur. Concurrunt iussu meo plures uno tempore librarii: descriptam legem ad me adferunt.

To be done by Candidates for Bursaries.

3. *Translate into English:—*

At tua, Maecenas, vitae praecepta recepi,
Cogor et exemplis te superare tuis.
Cum tibi Romano dominas in honore secures
Et liceat medio ponere iura foro,
Vel tibi Medorum pugnaces ire per hastas
Atque onerare tuam fixa per arma domum,
Et tibi ad effectum vires det Caesar et omni
Tempore tam faciles insinuentur opes,
Parcis et in tenues humilem te colligis umbras:
Velorum plenos subtrahis ipse sinus.
Crede mihi, magnos aequabunt ista Camillos
Iudicia et venies tu quoque in ora virum,
Caesaris et famae vestigia iuncta tenebis:
Maecenatis erunt vera tropaea fides.
Non ego velifera tumidum mare findo carina:
Tota sub exiguo flumine nostra mora est.

GREEK.

1. Translate:—

Καὶ ὁ μὲν δὴ κατὰ γῆν πόλεμος οὕτως ἐπολεμεῖτο. Ἐν ᾧ δὲ ταῦτα πάντα ἐπράττετο, τὰ κατὰ θάλατταν αὖ καὶ τὰς πρὸς θαλάττῃ πόλεις γενόμενα διηγήσομαι· καὶ τῶν πράξεων τὰς μὲν ἀξιομνημονεύτους γράψω, τὰς δὲ μὴ ἀξίας λόγου παρήσω. Πρῶτον μὲν τοίνυν Φαρνάβαζος καὶ Κόνων, ἐπεὶ ἐνίκησαν τοὺς Λακεδαιμονίους τῇ ναυμαχίᾳ, περιπλέοντες καὶ τὰς νήσους, καὶ πρὸς τὰς ἐπιθαλαττιδίας πόλεις, τούς τε Λακωνικοὺς ἁρμοστὰς ἐξήλαυνον, καὶ παρεμυθοῦντο τὰς πόλεις, ὡς οὔτε ἀκροπόλεις ἐντειχίσαιεν, ἐάσαιέν τε αὐτονόμους. Οἱ δ' ἀκούοντες ταῦτα, ἥδοντό τε καὶ ἐπῄνουν, καὶ ξένια προθύμως ἔπεμπον τῷ Φαρναβάζῳ· καὶ γὰρ ὁ Κόνων τὸν Φαρνάβαζον ἐδίδασκεν, ὡς οὕτω μὲν ποιοῦντι πᾶσαι αὐτῷ αἱ πόλεις φίλιαι ἔσοιντο.

2. Turn into Greek the following sentences:—

(1.) I will receive (λαμβάνω) the books which were given to me by the king.

(2.) He said that he would see (ὁρῶ) the great city which stood upon the hill (ὄρος).

(3.) If you had gone to Athens you would have seen many things worthy of praise (ἔπαινος).

(4.) God made the heavens and the earth, the sun, and the sea, and the stars, that you might behold (βλέπω) their beauty (τὸ κάλλος), and beholding admire (θαυμάζω).

Additional for First Year's Bursars.

The assassination of Philip of Macedon by Pausanias left an inheritance full of glory and full of danger to his son Alexander, who was then only twenty years old. At home all Greece was ready to revolt; and abroad the Persians were delighted to think that, instead of an old and experienced soldier, they had now a mere stripling to deal with, whom it would be easy to conquer by force, or to deceive by guile. But they were grievously disappointed in their expectations; the son of Olympias had a spirit not unworthy of his mother, and, like the Romans, the more dangers he had to overcome, the more energy he displayed in overcoming them.

MATHEMATICS.

Monday, 24th October 1881.—9 *to* 12 *o'clock.*

Candidates for Bursaries of the Second Year omit the questions in the paper marked with Greek Letters. Candidates for Bursaries of the Third Year omit those marked with Greek Letters and those marked with Roman Numerals. Candidates for the Entrance Examination alone need not take up more than twelve questions; but two at least of these must be taken from the last four.

α. The exterior angle of any triangle is equal to the sum of the two interior opposite angles.

The sum of the exterior angles of any convex polygon is four right angles.

β. If a straight line is divided internally at any point, the sum of the squares on the segments is double the square on half the line and on the line between the point of division and the middle point of the line.

Write down an algebraical identity which is equivalent to this proposition.

γ. If two circles touch one another, the line through their centres passes through the point of contact.

IV. The rectangles under the segments of any two lines drawn through a point P to cut a given circle are each equal to the difference between the squares on the radius and on the line joining P to the centre.

V. To construct a circle which shall pass through a given point and touch two given parallel straight lines.

VI. To inscribe a regular hexagon in a given circle.
Calculate the area of the hexagon in terms of the radius of the circle.

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7. In a right angled triangle, given the perpendicular from the right angle on the hypotenuse, and the ratio of the sides containing the right angle, to construct the triangle.

8. If two triangles have two angles equal or supplementary, their areas are to each other in the ratio compounded of the ratios of the sides containing the equal or supplementary angles.

9. Express in its simplest form, in terms of x and y,

$$\frac{P+Q}{P-Q}-\frac{P-Q}{P+Q}$$

where $P=x+y$, $Q=x-y$.
Resolve into factors

$$(ax+by+a)^2-(bx+ay+b)^2.$$

10. Reduce to a single fraction

$$1-\frac{a}{a-x}-\frac{x^2}{a^2-x^2},$$

$$\text{and } \frac{1-x}{1+x}+\frac{x-y}{x+y}+\frac{y-1}{y+1}+\frac{(1-x)(x-y)(y-1)}{(1+x)(x+y)(y+1)}.$$

11. Solve the equations

$$\frac{(x-a)^2}{(x-b)(x-c)}+\frac{(x-b)^2}{(x-c)(x-a)}+\frac{(x-c)^2}{(x-a)(x-b)}=3,$$

$$\frac{x}{a+x}-\frac{x}{a-x}+3=0,$$

$$\frac{x+\sqrt{x}}{x-\sqrt{x}}=\frac{x(x-1)}{4}.$$

12. Shew how to insert n harmonic means between two given quantities.
If b and c be two arithmetic, b' and c' two geometric, and b'' and c'' two harmonic means between two given quantities, shew that

$$b''c+bc''=2b'c'.$$

13. Prove from the definition of an index that $\left(\frac{x}{y}\right)^m=\frac{x^m}{y^m}$ m being a positive integer.
Express as a sum of simple surds

$$\frac{1}{\sqrt{11}+\sqrt{3}+\sqrt{14}}$$

14. Prove geometrically that

$$\sin(A+B)=\sin A\cos B+\cos A\sin B;$$

and deduce from the set of formulae of which this is one that

$$2\sin A\sin B=\cos(A-B)-\cos(A+B).$$

Prove that

$$8\cos^8 A+8\sin^8 A=\sin^4 2A+8\cos^2 2A.$$

15. Shew how to calculate the area of a triangle whose base and base angles are given.

The vertical angle of an isosceles triangle is A, and the length of each of the equal sides is b, prove that the radius of the inscribed circle is

$$\frac{b\sin\frac{A}{2}}{\tan\left(\frac{\pi}{4}+\frac{A}{4}\right)}.$$

16. Prove that the tangent to a parabola bisects the angle between the focal distance of the point of contact and the perpendicular from that point on the directrix.

17. State and prove the relation between the ordinate and the segments of the major axis corresponding to any point of an ellipse.

Given the focus and directrix of an ellipse, to find its point of contact with a given tangent.

ENGLISH GRAMMAR AND COMPOSITION.

FIRST PAPER.

Monday, 24th October 1881.—1 *to* 2 *o'clock.*

Write an Essay on either of the following subjects, attending to expression, pointing, and neatness of form :—

(*a*) War.

(*b*) Prose and Verse.

SECOND PAPER.

Monday, 24th October 1881.—2 *to* 4 *o'clock.*

1. Analyse the following sentence; and parse the words in italics :—

"To his *left*, and a *little* behind him, with a subtle *Venetian* countenance, *one* hand waving *back* a *file* of musketeers, and the other *raised* to arrest the arm of the intruder, was the *wily* minister Adorni, creeping nearer and *nearer*, and all *the* cooler *because* the position was dangerous."

2. Explain the following terms of English Grammar, and give examples :—*Inflection, Saxon diminutive, Classic diminutive, Romance words, hybrid forms, sharp mutes, abstract noun, adjective pronoun, adverb of degree, concord, case-absolute, intransitive verb.*

3. Do three things with the following passage, viz. :— (1) Express the meaning, as exactly as you can, in your own words; (2) Point out the words in it that are not of "Saxon" or native English origin, giving their derivations; (3) Note any peculiarities in the grammar of the last four lines :—

> "That time of year thou mayst in me behold
> When yellow leaves, or none, or few, do hang
> Upon those boughs which shake against the cold,
> Bare ruin'd choirs, where late the sweet birds sang.
> In me thou see'st the twilight of such day
> As after sunset fadeth in the west,
> Which by and by black night doth take away,
> Death's second self, that seals up all in rest.
> In me thou see'st the glowing of such fire
> That on the ashes of his youth doth lie,
> As the death-bed whereon it must expire,
> Consumed with that which it was nourished by."

4. Decline the nouns *ox*, *ass*, *axe*, *goose*, *beau*, *bandit*, and the pronouns *thou* and *who* (relative); and conjugate (by the principal parts) the verbs *defy*, *infer*, *choose*, *partake*, *hang*, *swell*.

5. Give examples (1) of English words that may belong to different parts of speech without change of form, (2) of English words or grammatical forms that are obsolete.

6. Quote, or invent, English lines exemplifying these terms of Prosody :—*Trochaic Verse*, *Anapaestic Verse*, *Dactylic Verse*, *Alexandrine*, *Alliteration*, *triple rhyme*.

7. Correct the following sentences of bad English, and point out the nature of the errors :—

(1) Premature decay is seldom or ever local.

(2) Scarcely has she gone than Clodius, with several of his gay companions, arrive.

(3) No sooner was the hunt over when each sportsman, more fatigued than the rest, retired to their separate rooms.

(4) Speaking with the poor woman on the subject, she mentioned a number of particulars. I will be excused for repeating them; for she was either under a delusion, or her case is one of the most cruel which has ever come to light.

(5) The connected chain of the great minds of the world ascends to the very fountain-head of history, and are the source of those harvests of various blessings of which the latest generations are reaping the fruits.

8. The following is an extract from a blank-verse poem, printed in prose. Arrange it in its proper form of blank verse, without changing a word or the order of the words :—

"A venerable man (so goes the legend) came to wake repentance in the fierce lord, and taxed him with his guilt; but he, heart-hardened,

turned into derision the man of heaven, and, as his dignity consisted much in a long reverend beard, which reached his girdle, caused the castle-barber, with sacrilegious razor, clip his hair, after the fashion of a fool."

EXAMINATION QUESTIONS FOR DEGREE OF M.A. IN 1881-82.

PASS OR ORDINARY EXAMINATION.

A.—DEPARTMENT OF CLASSICAL LITERATURE.

LATIN.

Tuesday, 18*th October* 1881.—9 *to* 11 *o'clock.*

Examiners—Professors SELLAR and MARSHALL.

1. *Translate into Latin :—*

He further represented the great obligations their body had to the Emperor Charles : "Who," said he, "after the loss of Rhodes, beholding them abandoned by all the Christian potentates, and wandering up and down through several parts of Italy, generously stripped himself of the islands of Malta and Goza, therewith to pleasure and gratify the destitute Cavaliers. A magnificent present," said he, "and worthy the piety and zeal of so mighty a Prince." With much more in the same strain. And when many of the knights, and particularly the French, seemed averse to the proposal, he failed not to put them in mind, "that it became them not to disoblige a monarch to whom they were indebted for every inch of ground they trod upon."

2. Answer any *two* of the following :—

(*a*) What were the chief circumstances in the political and social condition of Italy which called for remedy in the time of Tiberius Gracchus? How had those circumstances been brought about?

(*b*) Trace the steps by which *militarism* became predominant in the last century of the Republic.

(*c*) Relate the History of Gaul during this century in its connection with Italian politics.

(*d*) Trace the political and social influence of the *Publicani*, and in this connection give a biography of Crassus.

3. Answer *either* of the following :—

(*a*) Give an account of Cicero's consulship, and its results.

(*b*) The political ideals of Horace as illustrated by the third and fourth books of the Odes.

Tuesday, 18*th October* 1881.—12 *to* 2 *o'clock.*

1. *Translate:—*

Lucan, *Phars.* i. 121-133, *from* "Tu, nova ne," *to* "gaudere theatri."

2. *Translate:—*

Hor., *Epist.* i. 7, 10-28, *from* "Quodsi bruma nives," *to* "aera lupinis."

3. Translate either of the following :—

(*a*) Cic. de Orat., i. 58, *from* "Aliud est enim," *to* "exquisita deferunt."

(*b*) Tac., *Hist.* i. 46, *from* "Omnia deinde arbitrio," *to* "disciplinae firmatam."

4. Translate and annotate any *two* of the following :—

(*a*) Tac., *Hist.* i. 11, *from* "Aegyptum copiasque," *to* "loco regum."

(*b*) Tac., *Hist.* i. 71, *from* "Celsus constanter," *to* "et infelix."

(*c*) Hor., *Od.* iii. 6, 33-44, *from* "Non his iuventus," *to* " abeunte curru.

(*d*) Hor., *Od.* iv. 14, 9-19, *from* "Milite nam tuo," *to* "fatigaret ruinis."

Monday, 10*th April* 1882.—9 *to* 11 *o'clock.*

1. Translate into Latin prose :—

Still he scarcely thought life worth preserving : "I will die," he said, "in my fatherland, which I have so often saved." However, at the entreaty of his brother, to whom he was affectionately attached, he endeavoured to escape. He first went across the country to Astura, and there embarked. The weather was tempestuous, and as he suffered much from sea-sickness, he again landed at Gaëta. A treacherous freedman betrayed him, and as he was being carried in a litter he was overtaken by his pursuers. He would not permit his attendants to make any resistance, but patiently and courageously submitted to the sword of his assassins, who cut off his head and hands, and carried them to Antony. A savage joy sparkled in the eyes of the triumvir at the sight of these bloody trophies, while his wife Fulvia, gloating with inhuman delight upon the pallid features, in petty spite pierced with a needle that once eloquent tongue.

2. Answer any *two* of the following :—

(*a.*) What was the legal position of the Italians at the date of Tiberius Gracchus' accession to power in respect of civil and military liabilities and privileges, and in respect of the tenure of land? What proposals in their behalf were made by the Gracchi? Show the steps by which they ultimately attained equality with Rome.

(*b.*) Give, in the form of brief notes and dates, some account of the political career of any *three* of the following :—Carbo, Sertorius, Cinna, Fimbria, Lucullus, Crassus, Cato, Lepidus.

(*c.*) Give an account of the career of Pompey from the date of his return from Asia.

(*d.*) What were the main ideas of the reforms proposed by M. Livius Drusus the younger? In what respects do they compare favourably or unfavourably with those of C. Gracchus?

3. Answer *either* of the following :—

(*a.*) State what you know of the occasion and result of each of the following speeches, and of the light cast by them severally on Cicero's own history :—Pro Rabirio, Pro Sestio, Pro domo suâ, Pro Plancio, Pro lege Manilia, Pro Milone.

(*b.*) Between what dates were Horace and Virgil intimate friends? What is known of their relations, literary or social, during that period? What resemblances of opinion upon politics, philosophy, or religion do their writings indicate?

Monday, 10*th April* 1882.—12 *to* 2 *o'clock.*

1. Translate :—

(*a.*) Ovid, *Epist. ex Pont.* ii. 2, 47-54, *from* "Iam prope depositus," *to* "illa suum."

(*b.*) Hor., *Epist.* i. 6, 39-55, *from* "Mancipiis locuples," *to* "facetus adopta."

(*c.*) Cic. *de Orat.*, i. 47, *from* "Quid, quod usu," *to* "putandum est?"

(*d.*) Tac., *Hist.* i. 69, *from* "Haud facile dictu," *to* "civitati inpetravere."

2. Translate and explain :—

(*a.*) Hor., *Carm.* iii. 5, 13-18, *from* "Hoc caverat mens," *to* "Captiva pubes."

(*b.*) Hor., *Carm.* iii. 14, 5-10, *from* "Unico gaudens," *to* "Sospitum."

(*c.*) Hor., *Carm.* iv. 8, 13-20, *from* "Non incisa notis," *to* "Calabrae Pierides."

GREEK.

Wednesday, 19*th October* 1881.—1 *to* 4 *o'clock.*

Examiners—Professors BLACKIE and MARSHALL.

1. Translate into Greek :—

Themistocles dissembled his suspicions of their constancy, and confined himself to pointing out the advantages of the position they then occupied; "In the straits of Salamis you will be fighting in a situation the most favourable to yourselves, and with a reasonable prospect of victory; fighting also with Salamis, and Aegina, and Megara behind you, and untouched; while, if you withdraw to the Isthmus, you both abandon them to the barbarians, and fling away your best chance of success."

2. Translate :—

Thucydides, vii. 55, *from* "Γεγενημένης δὲ τῆς," *to* "πολλῷ δὴ μᾶλλον ἔτι."

Illustrate by reference to this passage some of the more important uses of the genitive case.

3. Translate :—

Odyssey xii. 204-221, *from* "αὐτὰρ ἐγὼ διὰ νηὸς," *to* "κακὸν ἄμμε βάλῃσθα."

(*a*) Parse εἶλει, εἶπω, δώῃ, βάλλευ, λάθῃσιν.

(*b*) Scan lines 2, 4, 7, remarking on any metrical peculiarities.

4. Translate :—

Platonis *Phædo* xxi., B.C., *from* "Πότερον οὖν αἱρεῖ," *to* "Οὐ δῆτα."

5. Translate :—

Sophocles, *Ajax* 603-621, *from* "καί μοι δυσθεράπευτος," *to* "μελέοις Ἀτρείδαις."

6. Translate :—

Diodorus Siculus xix. 67, *from* "Ἅμα δὲ τούτοις," *to* "ἀνεσταύρωσεν."

7. Answer any four of the following questions, two in literature, and two in history :—

(*a*) Give the chief political divisions of Greece at the time of the Persian war, showing which tribes were favourable, and which unfavourable, to the national cause, and their motives.

(*b*) Describe and discuss the policy of Pericles. Was the invasion of Sicily in accordance with that policy?

(*c*) Who were the chief *lyric* poets of Greece? When and where did they flourish? What do we know of the character of their work?

(*d*) Describe the plot of the *Ajax:* and give your own impressions of the artistic character of the drama.

(*e*) What are the principal differences between the ancient and the modern tragedy?

(*f*) What was the fate of the Greek language during the middle ages, and how was it transmitted to modern times?

(*g*) What is the verse called σκάζων, and who was its inventor?

(*h*) When did Phocion live, and what part did he play in the history of Greece?

(*i*) Give some account of the rise, decline, and fall of the Greco-Egyptian dynasty in Alexandria.

(*j*) Who wrote the first work on Universal Geography amongst the Greeks, where was he born, and when did he flourish?

(*k*) Who were the principal humorists among the Greek writers, where did they live, and what were their most famous works?

(*l*) When was the battle of Himera, and how did it affect the balance of power in the Mediterranean?

(*m*) Give the structure and significance of Trochaic and Anapæstic verse in Greek tragedy.

Tuesday, 11*th April* 1882.—1 *to* 4 *o'clock.*

1. Translate into Greek prose :—

It was a small army for the execution of designs so vast. But he

trusted to the promises of the Lucanians and Samnites; and he also intended to make the Tarentines into soldiers. No sooner had he landed than this people found how true were the words of their fellow-citizen. They had meant Pyrrhus to fight their battles: they soon found he was resolved that they should fight his. He shut up the theatres: put some demagogues to death and banished others: and ordered all citizens of military age to take their share in military service.

2. Translate—

(*a.*) Hom., *Odyss.* xii. 407-419, *from* "Ἡ δ' ἔθει," *to* "ἀποαίνυτο νόστον."

(*b.*) Soph., *Ajax* 1123-1134, *from* "ΤΕΤ. κἂν ψιλὸς," *to* "τοῦτ' ἠπίστασο."

(*c.*) Plat., *Phædo* xi. 66, *from* "Καὶ ἐκ τούτου," *to* "πρότερον δ' οὔ."

3. In passages (*a*) and (*b*) above, write out and mark accurately the scansion of the first three lines of each.

4. Answer any *two* of the following:—

(*a.*) Draw a map of Greece and mark clearly thereon the position of the following states and towns:—Argolis, Phocis, Elis, Achaia, Epirus, Locris, Doris, Boeotia, Attica, Messenia, Arcadia, Laconia, Acarnania; Naupactus, Tegea, Mantinea, Pylus, Thera, Corcyra, Epidamnus, Cirrha, Thermopylae, Potidaea, Chaeronea, Tanagra.

(*b.*) Mention (with dates) any one important event connected with each of the twelve places last named in question (*a*).

(*c.*) Give some account of the life and policy of Pericles.

(*d.*) Show in what ways Persia exercised an influence on Greek politics subsequently to the death of Pericles.

(*e.*) What were the main features of the philosophy of Socrates?

(*f.*) Explain the structure and significance of anapaestic verse in the Greek drama.

5. Describe the general arrangements for bringing out a play at Athens, and illustrate, by reference to the *Ajax* of Sophocles, the character of Greek tragedy.

B.—DEPARTMENT O PHILOSOPHY.

LOGIC AND METAPHYSICS.

Thursday, 20*th October* 1881.—9 *to* 12 o'*clock*.

Examiners—Professor CAMPBELL FRASER and Mr FRASER.

1. Offer some observations on the scheme of Philosophy presented by the University Curriculum, into Logic, Metaphysics, Moral Philosophy, and Natural Philosophy. How far is the classification exhaustive, and how far are its parts mutually exclusive?

2. Consider the function of imagination in scientific research.

3. How are reality and dreaming to be distinguished (*a*) on the "Common Sense" theory, (*b*) on Berkeley's theory?

4. Write a short note on each of the following :—Arthur Collier, "Minute Philosophers," Rev. Dr Samuel Johnson, Anthony Collins, Bishop Browne.

5. "Since the mind, in all its thoughts and reasonings, hath no other immediate object but its own ideas, which it alone does or can contemplate, it is evident that our knowledge is only conversant about them. Knowledge then seems to me to be nothing but the perception of the connection and agreement, or disagreement and repugnancy, of any of our ideas. In this alone it consists."

Critically consider this passage.

6. Enunciate the dictum of Aristotle, and point out its function in the doctrine of figure.

7. "In inductive research we can reach probability only, for our conclusions are always more extensive than their premisses; in deductive reasoning, on the other hand, the conclusion, if valid, is certain, but it is only hypothetically so, for Logic has nothing to do with the matter of reasoning; therefore real certainty is impossible."

(*a*) Throw the above passage into proper logical form; and (*b*) consider its validity both formally and materially.

8. What is Circumstantial Evidence?

9. Classify the fallacies to which inductive reasoning is liable.

10. It has been said that Logic as a science was created and completed by Aristotle. Consider shortly how for this is the case.

Wednesday, 12th April 1882.—9 *to* 12 *o'clock.*

1. Give a classification of the phenomena of the human mind, and in particular of the intellectual phenomena.

2. State the Laws of Association. Consider how far the Associative tendency is capable of explaining away principles which have been considered ultimate.

3. On what points does Reid consider that he agrees with Locke, and on what point does he think that they differ, regarding the nature of first principles?

4. State and exemplify Bacon's analysis of the causes of error.

5. Who was Father Buffier? Mention some of his views regarding first principles.

6. Write a few sentences containing an estimate of Berkeley's position in the history of metaphysical speculation.

7. Why has the First Figure been considered the highest type of Syllogistic reasoning, and on what grounds have some authorities rejected the Fourth?

8. Express the following argument in Syllogistic form, and consider both its formal and its material validity :—

"The universal concurrent assent of mankind may be thought by some an invincible argument in behalf of matter, or the existence of external things. Must we suppose the whole world to be mistaken?

And if so, what cause can be assigned of so widespread and predominant an error?—I answer, that upon a narrow inquiry, it will not perhaps be found so many as is imagined do really believe the existence of matter, or things without the mind. Strictly speaking, to believe that which involves a contradiction, or has no meaning in it, is impossible; and whether the foregoing expressions are not of that sort, I refer to the impartial examination of the reader. In one sense, indeed, men may be said to believe that matter exists; that is, they act as if the immediate cause of their sensations, which affects them every moment, and is so nearly present to them, were some senseless unthinking being. But, that they should clearly apprehend any *meaning* marked by these words, and form thereof a settled speculative opinion, is what I am not able to conceive."

9. Give a familiar instance of each of the Inductive methods.

10. Offer some observations on the question whether Deduction or Induction presents the ultimate form of reasoning.

MORAL PHILOSOPHY.

Friday, 21*st October* 1881.—9 *to* 12 *o'clock.*

Examiners—Professor Calderwood and Mr Fraser.

1. In what manner is the science of Ethics best divided, and why?

2. What is the test of certainty in morals, and why do you accept it?

3. Distinguish between a judgment of rightness and a judgment of oughtness, and consider how such judgments are related to each other.

4. Explain and consider various answers which utilitarians have given to the question—What is Duty?

5. What are the chief restraints upon action?

6. How is desire to be distinguished from will? May a Necessitarian draw any such distinction?

7. Analyse an exercise of will, taking for your example the desire of power.

8. Explain the relation of Moral Philosophy to Religion and to Politics.

9. Compare Hutcheson and Adam Smith.

10. How far may Butler be regarded as giving a complete answer to Hobbes?

11. Sketch Mackintosh's criticism of Butler's Theory, giving the main positions taken by Mackintosh in accounting for the authority of Conscience.

12. Give some account of Bentham's system.

Thursday, 13*th April* 1882.—9 *to* 12 *o'clock.*

1. Consider in what respect the words *Intuitional* and *Utilitarian* imply a cross division, and show how they are nevertheless suitable

terms to express the distinction between two fundamentally different ways of regarding ethical questions.

2. In what sense is it true that we ought to follow nature? Distinguish the various meanings of the word "Nature," and refer to the history of ethical speculation on the point.

3. Estimate the value and the defects of the term *Moral Sense.* Refer to the history of the subject.

4. Discuss the question—Can Conscience be educated?

5. Classify Impulses according to the system of the Lectures. Give also the classifications of Reid, Stewart, and Brown respectively.

6. "When a man does his duty, he escapes punishment; to assert anything more is to obliterate the radical distinction between duty and merit." Critically examine this statement, and estimate the worth of the theory of obligation involved in it.

7. Distinguish Freedom of Will from Caprice.

8. "A theory of the universe in which everything is regulated by an iron necessity has precisely the same moral effect upon human beings who accept it, as a theory in which all is left to absolute chance." Critically examine this statement.

9. Explain shortly the difference between ancient and modern systems in their mode of regarding ethical questions.

10. Give a brief account of any two of the following ethical theories, —those promulgated by Spinoza, Hartley, Hume, Reid, Kant, Hegel, J. S. Mill, Herbert Spencer.

11. Explain briefly, but with precision, Butler's psychological analysis of the moral side of man's nature. In what ways has that analysis been more fully developed in subsequent speculation?

12. Give (*a.*) the leading principles of Dr Samuel Clarke's ethical system; (*b.*) Compare his system with that of Mackintosh, giving the substance of what Mackintosh says in criticism of it; and (*c.*) Add any remarks of your own.

RHETORIC AND ENGLISH LITERATURE.

Friday, 21st October 1881.

First Paper—1 *to* 2 *o'clock.*

Examiners—Professor MASSON and Mr FRASER.

Write an Essay on either of the following subjects:—

"The Supernatural Element in *Macbeth.*"

"The Dramatic Act and Versification of *Samson Agonistes.*"

N.B.—*One hour is allowed for this Essay; and, as it is to be taken as an Exercise in Composition, attention is expected to expression, pointing, and neatness of form, as well as to matter.*

Second Paper—2 *to* 4 *o'clock.*

1. Under the two heads of Vocabulary and Grammar, give some account of the course of the English Language from the year 1000 to the year 1350.

2. Explain generally the classification proposed in the course for books belonging to the "Expository" species of Literature, and also the classification of "Oratorical" writings or discourses there proposed. Mention important English books or writers under each subdivision.

3. Do three things with the following passage from *The Knightes Tale*, viz.—(1) Express it in modern English; (2) Mention its context in the story; (3) Note any peculiarities, grammatical or metrical, in lines 3, 6, and 11.

(1) The preyer stynt of Arcita the stronge,
(2) The rynges on the tempul dore that honge,
(3) And eek the dores, clatereden ful faste,
(4) Of which Arcita somwhat was agast.
(5) The fyres brenden on the auter brighte,
(6) That it gan al the tempul for to lighte;
(7) A swote smel the ground anon upyaf,
(8) And Arcita anon his hand up-haf,
(9) And more encens into the fyr he caste,
(10) With othir rightes; and than atte laste
(11) The statu of Mars bigan his hauberk rynge.

4. *Either* (*a*) Describe Spenser's influence on English poetry from his death to the Restoration, illustrating by the mention of names; *or* (*b*) Sketch the history of the English Drama through the same period, mentioning names.

5. Give, with dates, the names of the chief English *historical* prose-writers and chief English *speculative* prose-writers between 1580 and 1688; and add a short note on any *one* of the writers mentioned, naming his more important works.

6. Sketch the literary life of Gray, and mention some of Johnson's criticisms on his poetry.

7. Annotate as many as you can of the following passages from *Macbeth*, explaining their meaning, context, and allusions :—

(*a*) And, like a rat without a tail.
(*b*) By Sinel's death I know I am thane of Glamis.
(*c*) Sleep that knits up the ravell'd sleave of care.
(*d*) But shift away: there's warrant in that theft
Which steals itself when there's no mercy left.
(*e*) Carried to Colmekill,
The sacred storehouse of his predecessors.

(*f*) Within this hour at most
I will advise you where to plant yourselves,
Acquaint you with the perfect spy o' the time,
The moment on't.
(*g*) The shard-borne beetle with his drowsy hums.
(*h*) And some I see
That two-fold balls and treble sceptres carry:
Horrible sight!
(*i*) Old Siward, with ten thousand warlike men.
(*j*) Why should I play the Roman fool?

8. Rewrite No. 1 in its proper form as blank verse, without changing a word or the order of the words; and give the metrical formulæ and prosodic names of Nos. 2, 3, 4, 5, and 6:—

(1) "Wife, my mood is at such height of wrath that a mere feather would make me frantic now and mad with fury against these robber guests; but if thou hast the food and wine they call for, bring them forth; for, by my father's beard, if I were caterer, the banquet would be fearful."

(2) "The pilgrim's blessing be their meed."

(3) "Taste not when the wine-cup glistens."

(4) "Whether reason or fancy, the gay or the grave."

(5) "Summer isles of Eden lying in dark-purple spheres of sea."

(6) "War with a thousand battles, and shaking a hundred thrones.

Thursday, 13*th April* 1882.

First Paper—1 *to* 2 *o'clock.*

Write an Essay on either of the following subjects:—

(*a.*) Contrast of the Characters of Macbeth and Lady Macbeth.

(*b.*) The Influence of Political Events upon English Literature between 1625 and 1688.

N.B.—*One Hour is allowed for this Essay; and, as it is to be taken as an exercise in Composition, attention is expected to expression, pointing, and neatness of form, as well as to matter.*

Second Paper—2 *to* 4 *o'clock.*

1. *Either* (**A**) Specify the chief dialects of English (*a*) before the Norman Conquest and (*b*) after the Conquest, stating some of their most prominent grammatical differences; *or* (**B**) Explain and illustrate Grimm's Law.

2. Name the languages in which the British Islands possess literary remains older than the year 1250, indicating the range of time over which each of these early Literatures extends, and describing generally the most characteristic portions of the *contents* of each.

3. Do two things with the following passage from *Macbeth:* viz., (1.) Express the meaning as exactly as you can in your own words; (2.) *Either* point out and name some of the figures of speech in the passage, *or* explain its context in the play and connection with the story.

"If the assassination
Could trammel up the consequence, and catch
With his surcease success; that but this blow
Might be the be-all and the end-all here,
But here, upon this bank and shoal of time,
We'ld jump the life to come. But in these cases
We still have judgment here . . .
. . . His virtues
Will plead like angels, trumpet-tongued, against
The deep damnation of his taking-off;
And pity, like a new-born babe,
Striding the blast, or heaven's cherubim, horsed
Upon the sightless coursers of the air,
Shall blow the horrid deed in every eye,
That tears shall drown the wind. I have no spur
To prick the sides of my intent, but only
Vaulting ambition, which o'erleaps itself
And falls on the other."

4. Dividing the History of English Literature from 1250 to the present time into successive *periods*, as in the Lectures, and attending to the classification there adopted of Literature into its main *kinds*, mention a leading name for each *kind* in each *period*. Add a brief descriptive note, or title of book, to each name mentioned.

5. *Either* (1.) Explain and comment grammatically on any six of the following phrases from Chaucer's *Knightes Tale; or* (2.) Explain historically, and with reference to Milton's purpose, any six of the subsequent passages from Milton's *Areopagitica*.

A.—From the *Knightes Tale.*

1. When sche had swowned with a dedly chere.
2. I not which was the fairer of hem two.
3. Why crydestow? who hath the doon offence?
4. But I moste be in prisoun thurgh Saturne,
   And eke thorugh Juno, jalous and eke wood.
5. For he was yong and mighty for the nones.
6. Selde is the Fryday al the wyke i-like.
7. O regne, that wolt no felaw have with the.
8. But telleth me what mester men ye been.
9. Ne may with Venus holde champartye.
10. Contek with bloody knyf, and scharp manace.
11. Men may the eelde at-ren, but nat at-rede.

12. Myn lokying is the fadir of pestilens.
13. And if so falle a cheventen be take
On eyther side, or elles sle his make.
14. The helmes thei to-hewen and to-schrede.

B.—From the *Areopagitica*.

1. It would fare better with truth, with learning, and the Commonwealth, if one of your publisht Orders which I should name were call'd in.

2. This project of licencing crept out of the Inquisition, was catcht up by our Prelates, and hath caught some of our Presbyters.

3. Our inquisiturient Bishops, and the attendant minorities their Chaplains.

4. One of your own now sitting in Parlament, the chief of learned men reputed in this Land.

5. The acute and distinct Arminius was perverted meerly by the perusing of a namelesse discours writt'n at Delf.

6. The Windows also and the Balcone's must be thought on.

7. That continu'd Court-libell against the Parlament and City, printed, as the wet sheets can witnes, and disperst among us.

8. If we have only scapt the ferular to come under the fescu of an *Imprimatur*.

9. A prisner to the Inquisition, for thinking in Astronomy otherwise then the Franciscan and Dominican licencers thought.

10. Has his reward, and is at his Hercules pillars in a warm benefice.

11. these fantastic terrors of sect and schism.

12. Should ye set up an Oligarchy of twenty ingrossers over it, to bring a famin upon our minds again.

13. Planting our faith one while in the old Convocation house, and another while in the Chappell at Westminster.

6. Write some remarks on any *one* of these subjects: (*a.*) *Samson Agonistes* as an example of true Poetry, according to the view of Poetry taken in the course; (*b.*) The Drama of the Restoration and *Samson Agonistes* as related to it; (*c.*) The Autobiographic Element in *Samson Agonistes*.

7. Sketch the literary life of either Swift or Gray.

8. Give the prosodic names and metrical formulae of the first six of the following; and arrange No. 7 (which is a piece of blank verse printed as prose) in its proper form of blank verse:

1. Went on a party of pleasure one day.
2. Mark the winds, and mark the skies.
3. As down in the sunless retreats of the Ocean.
4. When I thought that a war would arise in defence of the right.
5. That same spirit of fire that wheels the sphery rotation.

6. Not with blinded eyesight poring over miserable books.

7.

The poor exile feels in each action of the varied day his doom of banishment: the very air cools not his fevered forehead, and the landscape offends him by its strangeness; even the food he eats seems alien, and the language round him unpleasing and discordant.

C.—DEPARTMENT OF MATHEMATICS.

MATHEMATICS.

Tuesday, 18*th October* 1881.—2.30 *to* 4.30 *o'clock.*

Examiners—Professor CHRYSTAL and Dr MACFARLANE.

1. If two triangles have one side of the one equal to one side of the other, and the angles adjacent to these sides equal, they are congruent (equal in every respect).

A point lies between two parallel straight lines, and is such that one straight line drawn through it terminated by the parallels is bisected, prove that every straight line so drawn is bisected.

2. In any right-angled triangle the square on the hypotenuse is equal to the sum of the squares on the sides which contain the right angle.

A rectangular strip of paper, 3 inches long by 2 inches broad, has a square one inch in the side cut off from one corner. Show how to cut the remainder into three pieces that will make up a square.

3. In a circle the angle in a semicircle is a right angle; but the angle in a segment greater than a semicircle is less than a right angle; and the angle in a segment less than a semicircle is greater than a right angle.

The locus of the middle points of all the cords of a circle which are drawn through a given point is a circle.

4. Define the tangent to a circle.

To describe a circle touching three given straight lines. Point out how many such circles there are in general.

If two of the given straight lines remain fixed, and the third move, what will be the locus of the centre of the various circles that touch the three lines?

5. In a right-angled triangle, if a perpendicular be drawn from the right angle to the hypotenuse, the two triangles on each side of the perpendicular are similar to the whole triangle and to one another.

Every chord of a circle is a mean proportional between the diameter drawn from one of its extremities and its projection on that diameter.

6. Prove that similar triangles are to each other in the duplicate ratio of their homologous sides.

Indicate, without detailed proof, how this proposition is extended to similar figures generally.

State the corresponding proposition for similar solids.

7. If a straight line is perpendicular to each of two intersecting straight lines at their point of intersection, it will be perpendicular to the plane which contains them.

Find the locus of points in space equally distant from two given points.

8. The tangent at a point in a parabola bisects the angle between the focal distance of the point and the perpendicular from the point on the directrix.

The locus of the foot of the perpendicular from the focus on the tangent to a parabola is the tangent at the vertex.

9. The tangents drawn from any external point to an ellipse subtend equal angles at either focus.

When two tangents to an ellipse and one focus are given, what is the locus of the other focus?

Or as an alternative—

Calculate the area of that zone of the earths's surface which lies between Lat. 30° and Lat. 45°, assuming the earth's radius to be 4000 miles, and π to be 3·1416.

10. Prove directly that

$$\sec^2 A = 1 + \tan^2 A ;$$

and hence deduce, by means of the values of sec A and tan A in terms of sin A and cos A, that

$$\sin^2 A + \cos^2 A = 1 .$$

Why is $\cos(-A) = \cos A$, but $\sin(-A) = -\sin A$?

11. Prove geometrically that

$$\sin 2A = 2 \sin A \cos A,$$

drawing your figure to suit the case where $A < 45°$.

Prove that

$$\cos 2A = \frac{1 - \tan^2 A}{1 + \tan^2 A};$$

and

$$\frac{\cos A + \sin A}{\cos A - \sin A} - \frac{\cos A - \sin A}{\cos A + \sin A} = 2 \tan 2A .$$

12. Prove that $\tan \frac{1}{2}(B - C) = \frac{b - c}{b + c} \cot A ;$

and explain the use of this formula.

Express $\frac{1 - \cos A}{1 - \cos B}$ in terms of the sides of the triangle.

Wednesday, 19th October 1881.—9 *to* 11 o'clock.

1. A merchant bought 200 yards of cloth at 6s. per yard, payable in three months, and sold them one month after at 7s. per yard, payable in four months. To pay the purchase-money he borrowed for the necessary time at the rate of 6 per cent. per annum. Find his gain or loss on the transaction.

2. Expand according to powers of x

$$\{(x^2+x+1)(x^2-x+1)(x^2-1)\}^2;$$

and $(x+1-\sqrt{2}+\sqrt{3})(x+1+\sqrt{2}-\sqrt{3})(x+1-\sqrt{2}-\sqrt{3})$.

3. Simplify

$$\frac{a}{b(a+b)}+\frac{b}{a(a-b)}+\frac{a}{b(a-b)}-\frac{b}{a(a+b)}$$

$$\frac{x^3-2+x^{-3}}{x-2+x^{-1}}$$

$$\left(\frac{x^p}{x^q}\right)^{p+q}\div\left(\frac{x^{p+q}}{x^{p-q}}\right)^{\frac{p^2}{q}}.$$

4. Define a Rational Integral Algebraical Function. When is such a function said to be homogeneous in any given set of letters?

Prove that if P, Q, R be three rational integral functions, and P divide Q and R exactly, it will divide $mQ+nR$, where m and n are any rational integral functions.

Find the L. C. M. of

$$x,\ x-1,\ x^2-1,\ x^3+1,\text{ and } x^6-1.$$

5. Resolve into factors

$$bc(b-c)+ca(c-a)+ab(a-b).$$

Shew, by means of the Theorem of Remainders, that

$$3x^4-4x^3+6x^2+9x-1$$

is not divisible by $x+1$. What constant must be added to make the division exact?

6. Prove that the product or quotient of two complex numbers $p+q\sqrt{-1}$, and $r+s\sqrt{-1}$ can be expressed as a simple complex number of the form $P+Q\sqrt{-1}$.

Simplify

$$\frac{\sqrt{-2}}{(\sqrt{3}-\sqrt{-2})^2}-\frac{\sqrt{3}}{(\sqrt{3}+\sqrt{-2})^2}.$$

7. Solve

$$(1.)\ \frac{x(x-3)}{2}=20$$

$$(2.)\ \frac{a}{x}+\frac{b}{y}=c$$

$$\frac{b}{y}+\frac{c}{z}=a$$

$$\frac{c}{z}+\frac{a}{x}=b.$$

Find what values of x render the expression $5x^2 - 9x - 2$ positive.

8. If α and β be the roots of the equation

$$x^2+px+q=0$$

shew that $\alpha+\beta=-p$, $\alpha\beta=q$; and find the value of $\alpha^{-3}+\beta^{-3}$.

Solve the equations

$$(1.)\ \sqrt{x}+a=\sqrt{2x+2a^2-b^2}.$$
$$(2.)\ x^{\frac{1}{2}}+y^{\frac{1}{2}}=a^{\frac{1}{2}}\quad x+y=b.$$

9. Find the sum to n terms of the arithmetical series of which the first term is $\frac{n^2-1}{2}$, and the common difference $1-n$.

Sum to n terms the series whose nth term is $2n3^{n+1}$.

10. Prove De Moivre's Theorem for positive integral exponents.

Apply it to prove that

$$\sin 3\theta=3\sin\theta-4\sin^3\theta$$
$$\text{and } \cos 3\theta=4\cos^3\theta-3\cos\theta.$$

Or, as an alternative,

If n coins are tossed up together, in how many different ways may they fall; and in how many of these way do two and only two heads appear?

11. Prove the Binominal Theorem for positive integral exponents; and state the rule for the successive calculation of the coefficients for exponents 1, 2, 3, 4, etc.

Resolve $\frac{x+3}{(2x+1)(x-2)}$ into partial fractions, and find the coefficient of x^n in its expansion in powers of x.

Or, as an alternative,

Prove that if p be the perpendicular from the origin on a straight line, and α the inclination of the perpendicular to the axis of x, the equation to the line is

$$x\cos\alpha+y\sin\alpha-p=0.$$

Find the length of the perpendicular from the point whose coordinates are $(a+b, a-b)$ on the line whose equation is

$$(a-b)x+(a+b)y=a^2-b^2.$$

12. Assuming the expansion of a^x in terms of x, deduce the expansion of $\log_e(1+x)$ in powers of x.

Given $\log 456=2{\cdot}6589$,
and $\log 312=2{\cdot}4941$,

calculate the logarithm of $\frac{(31{\cdot}2)^8}{\sqrt[14]{{\cdot}000456}}$.

Or, as an alternative,

Deduce from its focal property the equation to a parabola referred to its principal diameter and the tangent at its vertex as axes.

Deduce from the equation to the tangent that the locus of the foot of the perpendicular on the tangent is a straight line.

Tuesday, 11th April 1882—9 to 11 *o'clock.*

1. For a special sale a merchant gave his customers 40 per cent. off the marked price, but the goods had been marked at an advance of 60 per cent. on their cost. Did he gain or lose, and at what rate per cent.?

2. State the Rule for calculating by successive steps the numerical co-efficients of the different integral powers of a Binomial expression.

Expand $(x^3-a^2)^3 \times (x+a)^4$;

and $(x^3-x^2+x-1)^2\,(x^3+x^2+x+1)^2$.

What is the remainder when

$$x^8+7x^6-3x^5+4x^3-x^2+1$$

is divided by $x+6$?

3. Resolve into factors x^4+x^2+1.

Simplify $\dfrac{b^2+c^2-a^2}{(a-b)(a-c)}+\dfrac{c^2+a^2-b^2}{(b-c)(b-a)}+\dfrac{a^2+b^2-c^2}{(c-a)(c-b)}$.

Reduce $(a+b\sqrt{-1})(b+c\sqrt{-1})(c+a\sqrt{-1})$ to the form of $p+q\sqrt{-1}$.

4. If $\sqrt{a+\sqrt{b}}=P+\sqrt{Q}$, show that $\sqrt{a-\sqrt{b}}=P-\sqrt{Q}$, pointing out carefully the assumptions made and the principles used throughout the proof.

Simplify

$$\sqrt{\frac{81+24\sqrt{10}}{81-24\sqrt{10}}}.$$

Prove that

$$\frac{\sqrt[n]{\sqrt[n+1]{x}}}{\sqrt[n+1]{\sqrt[n+2]{x}}}=(\sqrt[n]{x}) \times (\sqrt[n+1]{x^{-2}}) \times (\sqrt[n+2]{x}).$$

5. Show that if n be an odd number, then $\dfrac{n^2-1}{2}$ and $\dfrac{n^2+1}{2}$ are whole numbers, and that these three numbers represent the sides of a right-angled triangle.

Prove that if a, b, c are real quantities, then the expression $\dfrac{bc+ca+ab}{a^2+b^2+c^2}$ may be equal to, but cannot be greater than, unity.

6. Find the condition that three equations of the first degree in two variables may have a common solution.

Solve the following equations

$$\left.\begin{aligned}(a-x)(b-y)&=ab\\ \frac{a^2}{x}+\frac{b^2}{y}&=\frac{a+b}{2}\end{aligned}\right\}.$$

7. Solve the equations

(1.) $4\,(x-2a)^2=9a(x-a)$.

(2.) $\dfrac{3}{3-x}+\dfrac{2}{2-x}+\dfrac{6}{6+5x}=3$.

(3.) $\left.\begin{aligned}(x+y)(x^3-y^3)&=819\\ (x-y)(x^3+y^3)&=399\end{aligned}\right\}$.

8. Find the sum of the first n natural numbers. Deduce the sum of the series whose general term is $a+nb$.

Required to find a number such that when it is added to 25, 49, and 89 there arise three numbers which are in geometrical progression.

9. Find directly the number of combinations of n things taken r at a time; and denoting this number by C^n_r, prove that

$$C^n_r=C^{n-1}_r+C^{n-1}_{r-1}.$$

In how many ways may 3 different things be given to 5 different persons.

10. Assuming the formula for expanding $\log(1\pm x)$, prove that

$$\log_e y=2\left\{\frac{y-1}{y+1}+\frac{1}{3}\left(\frac{y-1}{y+1}\right)^3+\frac{1}{5}\left(\frac{y-1}{y+1}\right)^5+\ldots\ldots\right\};$$

and by means of this series calculate $\log_e 2$ to 5 decimal places.

Given $\log 5 = \cdot 69897$, find the number of digits in $\{\sqrt{5}\}^{99}$.

Given $\log 549 = 2\cdot 73957$, and $\log 55 = 1\cdot 74036$; find the logarithm of $\cdot 5494$.

Or, as an alternative,

Prove for any conic section, that if G be the foot of the normal at P, and F the focus, then $FG=eFP$, where e denotes the eccentricity.

A circle described so as to pass through P and G and to touch the major axis in G, meets FP in P', and $F'P$ in P''; prove that $P'P''$ is parallel to the major axis.

11. Prove that

$$\cos\theta+i\sin\theta=\varepsilon^{i\theta},$$

where i denotes $\sqrt{-1}$.

Expand $\sin^{10}\theta$ in a series of cosines of multiples of θ.

Or, as an alternative,

Prove that the equation to the straight line, whose intercepts on the axes of x and y are a and b, is

$$\frac{x}{a}+\frac{y}{b}-1=0.$$

Find the equation to the straight line which makes an intercept of -3 on the axis of x, and which bisects the portion of the straight line

$$3x+2y=6$$

intercepted between the axes of x and y.

12. State the principle of Indeterminate Coefficients.

Expand $\frac{3x-2}{(x-1)(x-2)^2}$ as a sum of partial fractions; and deduce the coefficient of x^6 in the expansion of the expression in ascending powers of x.

Or, as an alternative,

Shew that with certain axes the equation to the parabola is $y^2=4ax$.

With the same axes find the equation to the normal to the parabola at the point x', y'; and show by means of it that the subnormal is constant.

Tuesday, 10*th April* 1882.—3 *to* 5 *o'clock*.

1. If one side of a triangle be produced, the exterior angle will be equal to the two interior and opposite angles; and the three interior angles of a triangle are together equal to two right angles.

If the medium equals half its base, its angle is a right angle.

2. Of two triangles having two sides of the one equal to two sides of the other, each to each, the one having the greater vertical angle has the greater base.

Prove that of the two angles which the bisector of the vertical angle of a triangle makes with the base, the obtuse angle lies toward the greater side.

3. The sum of the squares on the sides of a triangle is equal to twice the square on half the base, together with twice the square on the straight line which joins the vertex to the middle point of the base.

Given that the sides of a triangle are 4, 7, 9; find the median for the first side.

4. In a circle the angle contained by a tangent and a chord drawn from the point of contact is equal to the angle in the alternate segment of the circle.

A is a point on the circumference of a circle, AT the tangent at A, and P a point which starts from A and moves along the circumference; prove that the angle PAT increases half as fast as the angle subtended at the centre of the circle by the arc AP.

5. About a circle to circumscribe a triangle equiangular to a given triangle.

AB is an arc of a circle less than a semicircle, P any point in the arc; prove that the angle APB exceeds half the angle between the tangents at A and B by a right angle.

6. If two triangles have their angles respectively equal, they are similar, and those sides which are opposite to the equal angles are homologous.

An upright pole standing on level ground has a rope attached to its top, which reaches to the ground. A man, six feet in height, desirous of knowing the height of the pole, grasps the end of the rope, and holding it on a level with the top of his head finds that he can walk out 15 feet from the pole before the rope becames stretched tightly. Has he got the requisite data? and if so, what is the height of the pole?

7. If O be a fixed point, P any point in a given circle, and OP be produced to P' so that OP' is to OP in a given ratio: prove that the locus of P' is a circle.

O is a fixed point, OPQ a straight line meeting a given circle in P and Q, PQ is produced to R so that QR is equal to OP; prove that the locus of R is a circle.

8. Shew that a common perpendicular can be drawn to two straight lines in space which do not intersect; and that it is the shortest distance between them.

Or, as an alternative,

Calculate the volume of the frustum of a right cone whose height is five feet, and the diameters of whose ends are nine feet and seven feet respectively.

9. Define the *parabola* as a particular section of a cone.

Prove that the subtangent in a parabola is double the abscissa from the vertex; and that the subnormal is constant.

A series of parabolas have a common directrix, and pass through a fixed point; find the locus of their foci.

10. Express in degrees and in circular measure the angle made by the hands of a clock at 3.35 o'clock.

Prove that

$$\tan(A+B+C)=\frac{\tan A+\tan B+\tan C-\tan A\tan B\tan C}{1-\tan B\tan C-\tan C\tan A-\tan A\tan C};$$

and that $$\sin A+\sin B=2\sin\frac{A+B}{2}\cos\frac{A-B}{2}.$$

11. Prove that

$$(\cos\alpha-\cos\beta)^2+(\sin\alpha+\sin\beta)^2=4\sin^2\frac{\alpha+\beta}{2}.$$

Solve the equation

$$\text{Sin } 3\theta+\cos 3\theta=\sin\theta+\cos\theta;$$

and give the most general values of θ.

12. Prove the formulae

$$\frac{\sin A}{a} = \frac{\sin B}{b} = \frac{\sin C}{c}.$$

Express the radius of the circle inscribed in a triangle in terms of a, B, and C.

Shew that the distances of the centre of perpendiculars of a triangle from its vertices are $D \cos A$, $D \cos B$, $D \cos C$, where D denotes the diameter of the circumscribing circle.

NATURAL PHILOSOPHY.

Thursday, 20*th October* 1881.—1 *to* 4 *o'clock.*

Examiners—Professor TAIT AND Dr MACFARLANE.

Not more than eighteen questions to be answered, of which six must be taken from questions 1.-8. *inclusive.*

1. Define *Velocity*, *Acceleration*, *Momentum*, and *Force*. Which of these ideas are kinematical, and which dynamical?

2. Define *Mass* and *Weight*, explaining carefully how each is to be determined. How is it proved experimentally that, in any given place, the weights of all bodies are as their masses?

3. Define Average Velocity.

What is the average velocity of a point executing a Simple Harmonic Motion for the time occupied in moving from the one to the other extremity of its range, its maximum velocity being 5 feet per second?

4. Prove that the path of an unresisted projectile is a parabola; and show how to find, when the initial velocity is given, the directions of projection from one given point so that another given point may be struck.

5. State the laws of Statical Friction.

A 28 lb. weight is suspended by means of a ring on a straight rod which revolves in a horizontal plane about a fixed axis. The coefficient of friction between the ring and the rod is $\frac{1}{7}$, and the distance of the weight from the axis is 5 feet. Find the rate of revolution when the weight will begin to move outwards.

6. A body rests on a horizontal plane whose coefficient of friction is $\frac{1}{2}$; at what inclination must a force equal to the weight of the body be applied so that it may be just on the point of moving the body.

7. Explain the nature and use of Contour Lines.

How will the following physical features be indicated, (1) a waterfall, (2) a lake with outlet, (3) a lake without outlet, (4) the junction of two streams, (5) an overhanging precipice?

8. Describe the circumstances of the direct impact of two elastic spheres. If the coefficient of restitution is 1, and the spheres equal in mass, show that the velocities are simply interchanged.

9. What is the logical nature of a Physical Series or Scale, as for example, the Scale of Hardness? Give other examples of such a Series.

10. Give a general explanation of the rise of water in a clean capillary tube of glass.

How can the surface tension of a liquid be detected by direct experiment?

11. Describe an experiment which proves that the boiling-point of water depends upon the pressure.

How may this principle be applied to determine the height of a station above the level of the sea?

12. Explain one method of determining the compressibility of water?

13. State briefly the principal advances in the Science of Electricity associated with the names of Volta, Coulomb, Ampère, Faraday, and Ohm.

14. State Kepler's Laws, and the immediate consequences of each as deduced by Newton.

15. Describe the different electric or magnetic phenomena which go by the name of *induction*.

16. State, in any of its forms, the second law of Thermodynamics; and point out the main novelties introduced by Carnot into physical reasoning with regard to heat.

17. State the fundamental laws of Geometrical Optics.

Explain the sharpness of the shadows produced by the arc electric light.

18. The thermal conductivity of iron is about 0·0133, the units being the foot, minute, and degree C.

Find how much heat, per hour, is lost by a boiler of $\frac{1}{4}$ inch plate whose surface is 10 square yards, and which contains water at 110° C, the external surface of the boiler being kept at 100° C.

19. State the laws of the Refraction of Light, and show how they necessarily lead to the conception of a *critical angle*.

20. Define Specific Heat, and give instances of the utility of the great specific heat of water.

21. Find the formula for correcting the error in the time published by the Castle Gun due to distance from the Castle.

22. Describe the conditions of distinct vision, and explain the action of a simple convex lens used as a microscope.

23. Give an outline of the facts and reasoning by which it is concluded that certain elementary substances, such as sodium, iron, hydrogen, exist in the Sun.

24. Explain the origin of the waves which are seen on a shelving shore, even when the sea appears absolutely calm. Why do we sometimes find every ninth or tenth, etc., wave considerably higher than the others? State, concisely, the origin of a breaker, and of a bore.

Candidates for the Neil-Arnott Prize will answer the following, in addition to not more than 12 *of the preceding questions.*

(*a.*) How do we judge of the position of a source of sound?

(β.) What is the nature of ordinary Colour-Blindness?

(γ.) Explain how a forged bank-note can be detected by means of the stereoscope.

(δ.) How can the rate of propagation of a nerve-disturbance be measured?

(ϵ.) What is the cause of the difference between the light of the electric arc, and that of a solid incandescent black body as in Swan's lamp?

(ζ.) State, approximately, how the rate of flow of water through *very fine* tubes depends upon—

(a) Temperature.
(b) Pressure.
(c) Diameter of tube.
(d) Length of tube.

How are these modified in wide tubes, such as those which supply a town with water?

Wednesday, 12th April 1882.—1 *to* 4 *o'clock.*

1. Define *Velocity* and *Average Velocity.*

Two passenger trains having equal velocities, and consisting each of 12 carriages, are observed to take 9 seconds to pass one another; what is the velocity, estimating the length of a carriage at 23 feet?

2. Show that the Velocity of a point is fully determined, in magnitude and direction, by means of its Components parallel to any set of three lines at right angles to one another.

3. Define *Acceleration.* What is its relation to *Force?*

A man steps on to an elevator, which thereupon descends with a uniform acceleration of 20 feet per second; what sensation will he experience, and calculate its amount?

What sensation will he experience when the elevator strikes the ground?

4. Enunciate Newton's *Second Law of Motion*, and show how to find the resultant of two forces acting at one point.

A string has its ends fixed at two points, and a mass of 10 lbs. is attached to an assigned point in it. Find the tensions produced in the two parts of the string.

5. Define *Kinetic Energy* and *Work.*

Calculate the Kinetic Energy of a tram-car weighing 2·5 tons, when it is moving at the rate of 6 miles an hour, and is laden with 36 passengers averaging 9 stones each in weight.

If the co-efficient of Kinetic Friction for a tram-car moving on its rails is $\frac{1}{8}$; find how much work is done, when the above car, loaded as stated, is pulled 3 miles along a level road.

6. Compare the amounts of *Momentum* and of *Kinetic Energy* in (a) a pillow of 20 lbs. which has fallen through one foot vertically, and (b) an ounce bullet moving at 200 feet per second.

7. Define *Centre of Inertia*, and *Centre of Gravity.*

Show that when the latter Centre exists it coincides with the former.

Two labourers carry a rectangular block of stone on a hand-barrow up a scaffolding stair; show how the weight of the stone will be distributed between them.

8. Define *Simple Harmonic Motion;* and show that the resultant of two S. H. M., of the same period, and in one line, is another S. H. M. of the same period. Apply this to the indications of a Tide-gauge.

9. State the principle of the Common Balance. What conditions must a Balance satisfy in order to be good?

A shopkeeper, having a faulty balance, proposed to weigh a commodity by suspending it from the long arm; but the customer, interposing, proposed that it should be weighed from the short arm; eventually they agreed to take the arithmetical mean of the two values. Did this compromise favour either party, and if so, by how much?

10. Explain, according to the accepted theory, the rise of water in a capillary glass tube. Point out the various assumptions required by the theory, and show how each may be experimentally verified.

11. Compare the characters of Frictional Electricity with those of Voltaic Electricity.

What is the principle involved in the construction of a Magneto-electric machine?

12. Define *Contour Lines;* and explain, by an example, the use of the principle they involve as regards applications in Physical Science.

13. Define *Electric Conductivity*, and point out its analogy to *Thermal Conductivity*.

Arrange the following substances in the order of their Electric Conductivity, beginning with the best conductor:—

Iron, Lead, Carbon, Copper, Silver.

14. Define *Elasticity*, and show how the elastic properties of bodies enable us to distinguish clearly between solids and fluids.

How is the distinction of fluids into gases and vapours determined?

15. What tests can be applied to determine—

(1.) Whether or not a current of electricity is flowing round a circuit?

(2.) Whether or not a bar of steel, such as a sewing-needle, has been magnetised?

16. Define a *Musical Note* in terms of the corresponding agitation of the air.

In what separate respects may two notes differ?

What are the physical causes of these differences; and what is the relative sensibility of the ear to them?

17. Define *Specific Heat*, and *Latent Heat*.

Calculate the cooling effect of a cube of ice 2 feet in the side, taken at 0° C., and reaching 27° C. when its cooling power has been ex-

hausted. (The co-efficient of the expansion of water on changing into ice is $\frac{1}{11}$, and the number of pounds in 1 cubic foot of water is 62·4.)

18. Explain the so-called *Aberration of Light;* and show how it affects the apparent position of (*a*) a fixed star, (*b*) a planet.

19. State the chief principle involved in the construction of a Spectroscope.

Certain dark lines in the Solar Spectrum are attributed to absorption of the Sun's light by the Earth's atmosphere, and certain others are attributed to absorption by the Sun's own atmosphere. How can this discrimination be made?

What is the *Rain-band?*

20. Explain the action of a lens of short focal length when used as a hand magnifier, and show how to calculate its magnifying power.

When two such lenses are placed close together, what is the magnifying power of the system in terms of those of the components?

21. Explain the action of Oil in destroying waves.

22. On what properties of matter do the following contrivances depend :—

(*a.*) Achromatic Lenses.
(*b.*) Compensation Pendulums.
(*c.*) The production of Green paints by mixing Blue and Yellow.
(*d.*) The Governor of a Steam-engine?

23. State the principal advances in Physical Science associated with the names of Torricelli, Pascal, Boyle, Fresnel, and Young respectively.

24. Show how the Earth's *Magnetic Force* at any place can be fully determined in direction and magnitude; pointing out in general terms the nature and use of each of the instruments employed.

25. What is meant in Thermodynamics by a *Cycle of Operations*, and what by a *Reversible Cycle?* Show, from the modern view of the nature of heat, that a reversible engine is perfect.

26. Show how the idea of *Temperature* is suggested, how temperature is commonly measured, and how it can be measured absolutely.

EXAMINATION IN ARTS FOR HONOURS.

A.—DEPARTMENT OF CLASSICAL LITERATURE.

LATIN.

Friday, 14*th April* 1882.—9 *to* 12 *o'clock.*

Examiners—Professors SELLAR and MARSHALL.

1. Translate into Latin prose :—

(*a.*) The event of the two former sieges elated their confidence and exasperated the haughty spirit of the great king, who advanced a

third time towards Nisibis, at the head of the united forces of Persia and India. The ordinary machines invented to batter or undermine the walls were rendered ineffectual by the superior skill of the Romans; and many days had vainly elapsed, when Sapor embraced a resolution worthy of an eastern monarch, who believed that the elements themselves were subject to his power. On an artificial lake, formed by damming up the river, a fleet of armed vessels, filled with soldiers and with engines which discharged stones of five hundred pounds weight, advanced in order of battle, and engaged, almost upon a level, the troops which defended the ramparts. The irresistible force of the waters was alternately fatal to the contending parties, till at length a portion of the walls, undermined by the waters, fell and opened an ample breach to the invaders.

(*b.*) More blessings are still remaining to you than to any man living. In that which is the most delightful of all literary occupations, at how immense a distance are you from every rival or competitor! In history what information are you capable of giving to those even who are esteemed the most learned. And those who consult your criticisms, do not consult them to find, as in others, with what feathers the most barbarous ignorance tricks out its nakedness, or with what gypsy shuffling and arrant slang detected impostures are defended. On this sad occasion I have no reluctance to remind you of your eminent gifts. In return I ask from you a more perfect knowledge of myself than I yet possess. Conscious that I have done nothing very wrong, I almost hope that I have done something not quite right, that I may never think you have been unjust to me.

Friday, 14th April 1882.—1 *to* 4 *o'clock.*

Translate, adding a few notes explanatory or illustrative :—

(1.) Lucr. *de Nat. Rer.*, v. 614-634, *from* "Nec ratio solis *to* "praeterque feruntur."

(2.) Virg. *Aen.* v. 816-832, *from* "His ubi laeta," *to* "flamina classem."

(3.) Tac., *Hist.*, iii. B., *from* "At Caecina," *to* "prospera aut adversa?"

(4.) Juven., *Sat.*, xiv. 256-275, *from* "Monstro voluptatem," *to* "villas temerarius."

(5.) Plin., *Epist.*, vi. 20, *from* "Paulum reluxit," *to* "quidem videbuntur."

(6.) Stat., *Sil.*, vi. 1-20, *from* "Saeue nimis," *to* "ceruusque Maronem."

Saturday, 15th April 1882.—9 *to* 12 *o'clock.*

1. Explain and comment on the words italicised in the following passages :—

(*a.*) "Sub Tiberio et Gaio et Claudio *unius familiae quasi haereditas* fuimus; loco libertatis erit, *quod eligi coepimus.*" What is the system of nomination to the Empire here referred to?

(*b.*) "Fabius balens adlicere vel, si abnuerent vastare *Gallias* et *Cottianis Alpibus* Italiam inrumpere, Caecina *propiore transitu Poeninis iugis* degredi iussus." Distinguish geographically the two routes here indicated. By what other names were the great ranges of the Alps distinguished from one another in ancient times?

(*c.*) "Confugiendum est ad imperium. An *excidit trucidatus Corbulo?* Splendidiore origine quam nos sumus, fateor, sed et *Nero nobilitate natalium Vitellium anteibat.*" Give a short sketch of the career of Corbulo.

(*d.*) Repeti inde *cognitionem* inter Musonium Rufum et Publium Celerem placuit, damnatusque Publius et *Sorani manibus satisfactum.*

(*e.*) Sequebatur Vibius Crispus, ambo infensi, voltu diverso, Marcellus minacibus oculis, *Crispus renidens.* Illustrate the two last passages by reference to Juvenal.

2. Translate and comment on the following with reference (1) to the personal circumstances of Juvenal; (2) the motives of his satire; (3) the historical personages and facts mentioned, or alluded to in his satire.

a. Et quoties te
Roma tuo refici properantem reddet Aquino
Me quoque ad Helvinam Cererem vestramque Dianam
Converte a Cumis.

b. Quod non dant proceres dabit histrio.

c. Spectent iuvenes quos clamor et audax
Sponsio, quos cultae decet assedisse puellae;
Nostra bibat vernum contracta cuticula solem
Effugiatque togam.

d. Experiar quid concedatur in illos
Quorum Flaminia tegitur cinis atque Latina.

e. Et qui vulturibus servabat viscera Dacis
Fuscus, marmorea meditatus proelia villa,
Et cum mortifero prudens Veiento Catullo.

f. Quid enim Verginius armis
Debuit ulcisci magis aut cum Vindice Galba?

3. Answer any *five* of the following:—

i. Compare critically Virgil's treatment of the characters of Aeneas and Turnus.

ii. Give some account of the development of the hexameter from Ennius to Juvenal.

iii. "Quis potis est dignum pollenti pectore carmen
Condere pro rerum majestate hisque repertis?"
What seems to be the leading characters, to Lucretius' mind, of the "majestas cognita rerum" here referred to?

iv. Does the language applied by the Augustan poets to Augustus appear to be mere flattery and vague panegyric, or to be justified by history?

v. Examine and comment on the following :—"The fatal dualism thus introduced into the constitution—the Assembly governing *de jure*, and the Senate governing *de facto*,—made all government after a time impossible. If the Senate governed badly the Assembly could not govern at all ; and there could be, in the long run, but one end to the constant struggle between the two sources of authority."

vi. What indications do you find in Tacitus and Juvenal (1) of republican or Anti-Caesarian sentiment ; (2) of religious belief, doubt, or conformity ; (3) of sympathy with, or opposition to, any of the philosophical systems of antiquity ?

vii. What light is thrown by the letters of Pliny on the facts and personages of Juvenal's satire, and on the picture which he paints of Roman society?

viii. Illustrate from Pliny and other sources the taste among the educated class for literature, for art, and for nature about the end of the first century A.D.

ix. Give some account from Tacitus, Pliny, and Juvenal of the chief *Delatores*, and of the most important public prosecutions in the latter part of the first century A.D.

x. Examine and criticise the following :—"The *Histories* of Tacitus are more to be relied on than his *Annals*. The pictures he has drawn of Galba, Otho, Vitellius and Vespasian, bear the full impress of truth. They exhibit characters aptly moulded by the circumstances in which they are placed, with such a mixture of good and evil as stamps them at once as genuine."—Merivale's *Roman Empire*, Chap. XLII.

GREEK.

Saturday, 15th April 1882.—1 *to* 4 *o'clock.*

Examiners—Professors BLACKIE and MARSHALL.

1. Translate into Greek prose—

There can be no doubt that though commerce had brought to Greece greater love of independence, it had also brought with it in its train a love of luxury and greater softness of character. The growth of national independence and of free institutions had led the poet to forsake the celebration of some great chieftain's ancestors, and the enlivening his banquet by recording the heroic exploits of his family, and the genealogy of his race ; and to substitute regrets for lost national glory or gratulations on the rising freedom of his fatherland ; still his strains were poured forth, not only in the language of patriotism, but in the plaintive accents of the softer passions. And the musical accompaniments were in accordance with the changed character of the song. No

longer did the bard sweep the heart-stirring chords of the harp, but the soft notes of the lute imitated the emotions of the elegiac poet.

2. Translate—

Demos., *de Corona*, 60, *from* "Ἃ μὲν οὖν," *to* "πολιτείας εἰμὶ ἐγώ."

Monday, 17*th April* 1882.—9 *to* 12 *o'clock.*

1. Translate—

Hom., *Odyss.*, xvii. 215-232, *from* "τοὺς δὲ ἰδών," *to* κάτα βαλλομένοιο."

2. Translate, mark the quantities, and explain the structure of the metres and their significance in the expression of dramatic emotion—

Soph., *Oed. Col.*, 1211-1247, *from* "ὅστις τοῦ πλέονος," *to* "ἀπὸ ῥιπᾶν."

3. Translate—

Thuc. i. 85, *from* "Ταύτας οὖν," *to* "εναντίοις φοβερώτατα."

4. Give a philological analysis of the following words:—πότνια, λευσσω, τέμενος, νόμος, δέμας, ἄφορμος, ἔπαυλος, σκῆπτρον, γλαυκός, αἶνος, πρόσπολος.

5. Translate, and comment on—

Aristot., *Pol.*, iii. 9, 6, *from* "Εἰ δὲ μήτε," *to* "τοὺς πολίτας."

6. Explain the following "terms of art" in Aristotle's *Politics*:—ἀρχή, δίκη, φύσις, ἀρετή, βάναυσος, βασιλεία, ἀκριβεία, συμβαίνειν, ὑπάρχειν.

Monday, 17*th April* 1882.—1 *to* 4 *o'clock.*

1. Give the leading events in the life of Sophocles: compare his character as a dramatist with that of Aeschylus and Euripides, and give an account of the attitude of Aristophanes towards all the three.

2. Compare the historic methods of Herodotus and Thucydides. In what respects did the methods differ in the opinion of Thucydides himself?

3. Illustrate from Herodotus or other Greek writers the attitude of the Greeks towards Egyptian culture and religion.

4. What does Herodotus note as peculiar about the worship of Isis and Osiris: and what light has recent Egyptology thrown on the functions of this latter god?

5. Give a geographical account of the *three oases* described by Strabo.

6. Mention any fact of historical or topographical interest connected with the following places:—Meroe, Naucratis, Memphis, Thebae, Syene, Arsinoe, Tentyra, Berenice.

7. State and discuss Aristotle's theory of the origin of society. How is that theory related (*a*) to his own ethical conceptions, and (*b*) to the theories of earlier writers on the philosophy of history?

8. Give some account of the principal kings of the Ptolemaic dynasty from the death of Alexander to the battle of Actium.

9. The place of Alexandria in the history of Greek culture.

B.—DEPARTMENT OF PHILOSOPHY.

LOGIC AND METAPHYSICS.

First Paper.

Friday, 14th April 1882.—9 *to* 12 *o'clock.*

Examiners—Professor Campbell Fraser and Mr Fraser.

1. Consider the justice of the charge of *petitio principii* brought against the syllogism, carefully defining what you mean by *petitio principii.*

2. Explain what is meant by a purely formal conception of Logic, and consider how far such a conception is worthy of constituting a distinct science. What portions of ordinary logical doctrine must be rejected by those who accept a purely formal view of the science, and why? Is the principle of the express quantification of the predictate the necessary consequence of accepting the formal view of Logic previously known, or does it imply a fundamentally new way of regarding the nature of reasoning? In either case, give your reasons.

3. Consider whether immediate inferences are more than merely verbal changes of expression. When one is told to put a reasoning into syllogistic form, are there any, and if there are, what limits to the changes of expression which one may make in the reasoning?

4. Show whether the non-categorical inferences are mediate or immediate, and whether they are capable of being reduced to the form of categorical syllogisms. Enunciate and explain Hamilton's rules of Hypothetical Syllogism.

5. Explain clearly the process of *Reductio ad impossibile*, stating the exact grounds on which each step is legitimate. Reduce thus *Disamis.*

6. State each of the following formally, and convert :—

(*a.*) John is James.
(*b.*) Nothing exists.
(*c.*) There is no refusing him.
(*d.*) 2 and 2 are 4.
(*e.*) Some Lowlanders and most Highlanders have sometimes worn a kilt.
(*f.*) Many horses were required to pull the cart up the hill.

7. Express the following reasonings syllogistically, and consider their validity and logical character :—

(*a.*) There were twenty persons in the house when it was burnt ; and as only three of them were foreigners, no less than

eighteen Englishmen must have perished by the most miserable of all deaths.

(*b.*) Two sticks when rubbed together produce heat; when they are not rubbed together no heat is produced; consequently friction is the cause of heat.

8. State and critically examine Hamilton's view as to the nature of Induction and its place in Logical doctrine.

9. Explain those processes which Mill rejects as inductions improperly so called, and show why he rejects them.

10. Estimate the results of recent discussions as to the nature of inductive inference.

11. Give Locke's view as to the nature and function of the syllogism. Discuss. Compare Locke with Mill on this subject.

12. "If an alleged fact be in contradiction, not to any number of approximate generalizations, but to a completed generalization grounded upon a rigorous induction, it is impossible, and is to be disbelieved totally." Explain and discuss.

Second Paper.

Friday, 14th April 1882.—1 *to* 4 *o'clock.*

1. Examine the nature and ground of our conviction that we exist as separate personal entities. Does this imply that we are separate substances, or, if not, how is it related to the notion of substance? Are the individuality, personal identity, and moral responsibility of men consistent with the doctrines of substance held respectively by (*a.*) Spinoza, (*b.*) Locke, (*c.*) Berkeley, (*d.*) Kant? Give your reasons.

2. "Space is an intuition, not a conception." Explain this. State the grounds on which the proposition is founded. What philosophical theory regarding space seems to you necessary in order to explain the facts of human experience? Are space and time equally necessary as conditions of experience?

3. "All our complex ideas are merely aggregates formed by the mind of the individual out of previously existing simple ideas." Explain, and carefully examine this doctrine, in itself, and also in its relation to the constitution and ultimate mysteriousness of human knowledge.

4. Define (*a.*) knowledge, (*b.*) belief. Discuss their mutual relation, and refer to the chief opinions on this subject. In particular, discuss Hamilton's doctrine that human knowledge is ultimately nescience. Consider its consistency with his other doctrines, especially his philosophy of common sense.

5. Compare psychological analysis of rational consciousness and transcendental criticism of reason as methods for forming philosophy. Is the distinction between these methods fundamental?

Third Paper.

Saturday, 15*th April* 1882.—9 *to* 12 *o'clock.*

1. Estimate the value of modern physiological investigation in forming a theory of visual perception.
2. Give some account of the history of opinion regarding the mutual relation of the primary and secondary qualities of Matter.
3. What is the logical outcome and alleged defect of Empiricism? Discuss the question of the empiricism of Locke, and also the points of difference and agreement between Locke and Hume.
4. Point out the relation of the discussions in the *Theaetetus* to the previous and current state of philosophical opinion.
5. Distinguish Idealism as (*a.*) sceptical, (*b.*) dogmatic, (*c.*) critical; and examine the ground for the Kantian view of each.
6. What does Locke mean by *intuition*, and what by *demonstration?* Can you reconcile his maintenance of intuitional knowledge with his polemic against innate knowledge.
7. To what doctrines of the Peripatetics does Berkeley allude in Siris? Consider the consistency of his views in that work with his earlier opinions.
8. What grounds have we for believing or disbelieving that animals are capable of reasoning? Discuss. State and consider the views of Locke and of Hume on this point.
9. "The schema is itself always the product of the imagination. But the schema is clearly distinguishable from the image." Explain and illustrate this.
10. What does Kant mean by analogies of experience? Illustrate.
11. Give Locke's division of human knowledge. Compare it with other such divisions, and consider how far it forms a philosophy.
12. Gather Locke's theory of sense perception, if any, from his various writings.

MORAL PHILOSOPHY.

First Paper.

Saturday, 15*th April* 1882.—1 *to* 4 *o'clock.*

Examiners—Professor Calderwood and Mr Fraser.

Write an Essay on "The Method of Ethical Investigation," referring to the history of the subject in ancient and modern times.

Second Paper.

Monday, 17*th April* 1882.—9 *to* 12 *o'clock.*

1. Discuss the nature of Conscience.
2. Examine the relation of a Sensationist theory of Knowledge to a

Utilitarian theory of Morals, and of both to a Necessitarian theory of Will.

3. Define Desire, Will, Reason, and point out their respective functions in relation to human activity.

4. The acknowledgment of Disorder of our Moral Nature: consider its importance and place in a scientific explanation of morals.

5. Consider the relation of the Divine Sovereignty to human will.

6. Give a careful statement of the number and relations of the virtues in moral character. Discuss.

7. What various opinions have been held as to the meaning and the grounds of human immortality? Give your own view, and explain why you adopt it.

8. State what you consider to be the most important additions to Ethical opinion in recent years, and critically estimate their value.

Third Paper.

Monday, 17th April 1882.—1 *to* 4 *o'clock.*

1. What use does Socrates in the *Republic* make of the doctrine, *Corruptio optimi pessima?* Offer some critical observations on his general argument in the context, and on the doctrine itself.

2. Sketch the characters of the speakers in the *Republic*. Make good what you say by reference to passages in the dialogue.

3. Compare the Republic with other attempts, ancient and modern, to construct an ideal State.

4. Give some account of Speusippus. How, and in what contexts in the Nicomachean Ethics does Aristotle refer to him?

5. (*a.*) To what extent was Aristotle indebted to his predecessors for the doctrine of the Mean, and wherein does the novelty of his doctrine consist? (*b.*) Give his rules for attaining the mean, and (*c.*) a summary of what he says regarding the social virtues.

6. Explain in detail his account of εὐδαιμονια, and critically compare his views with those of Kant.

7. *Mens humana non potest cum corpore absolute destrui; sed ejus aliquid remanet, quod aeternum est.* How does Spinoza prove this proposition? and consider carefully what he means by it.

Give Spinoza's account of praise and blame,—merit and demerit.

8. What is meant by Hume's scepticism? Point out its influence on his ethical doctrines.

9. Critically examine Reid's explanation and defence of the liberty of moral agents. What arguments for necessity does he consider?

10. What are his views regarding the nature of moral approbation?

11. What does Kant mean by the Realm of Ends, by Ethical Fanaticism, and also by the Ascetic of Ethics?

12. State and discuss his explanation of Virtue.

C.—DEPARTMENT OF MATHEMATICS.

MATHEMATICS.

Friday, 14th April 1882—9 *to* 12 *o'clock.*

Examiners—Professor CHRYSTAL and Dr MACFARLANE.

1. Given a circular sheet of metal one foot in diameter, to cut out of it three equal circles of the largest possible diameter.

What is the diameter of each of the small circles?

2. A is a fixed point, B and C two fixed points on a given circle S, P a movable point on S; prove that the circles through PBA and PCA intersect at a constant angle.

3. Given that the Equations $x^2+ax+b=0$ and $x^2+a^1x+b^1=0$ have a common root, find the other roots.

Find the condition for two of the roots of the equation

$$x^3+qx+r=0 \text{ being equal.}$$

4. Prove that a skew symmetrical determinant of even order is a complete square.

Shew that the modulus of

$$\begin{vmatrix} e^{iA} & e^{iB} & e^{iC} \\ e^{2iA} & e^{2iB} & e^{2iC} \\ e^{3iA} & e^{3iB} & e^{3iC} \end{vmatrix} \text{ is } 8 \sin \frac{B-C}{2} \sin \frac{C-A}{2} \sin \frac{A-B}{2}.$$

5. Prove that the result of eliminating x, y, z between the equations

$$Ax^2+By^2+Cz^2=0$$
$$A'x^2+B'y^2+C'z^2=0$$
$$ax+by+cz=0$$

is $$\frac{1}{b^2(CA')+c^2(AB')-a^2(BC')} + \frac{1}{c^2(AB')+a^2(BC')-b^2(CA')} +$$
$$\frac{1}{a^2(BC')+b^2(CA')-c^2(AB')} = 0.$$

How would you effect the elimination when the first two equations contain the products as well as the squares of x, y, z?

6. Prove that $\log [a^2+b^2+2ab\cos\theta]^{\frac{1}{2}}$

$$= \log a + \frac{b}{a}\cos\theta - \frac{1}{2}\frac{b^2}{a^2}\cos 2\theta + \frac{1}{3}\frac{b^3}{a^3}\cos 3\theta - \text{etc.}$$

State the principal tests for the convergency of a series. Prove that the following series is convergent—

$$\frac{1}{x+\frac{1}{x}}+\frac{3}{1}\frac{1}{3\left(x+\frac{1}{x}\right)^3}+\frac{5\cdot4}{1\cdot2}\frac{1}{5\left(x+\frac{1}{x}\right)^5}+\frac{7\cdot6\cdot5}{1\cdot2\cdot3}\frac{1}{7\left(x+\frac{1}{x}\right)^7}+\text{ etc.}$$

7. Find the co-efficient of x^r in

$$(1+x+x^2+\ \ldots\ +x^n)^s$$

1st, when $r<n$ 2d, when $r=2n$.

Find in how many different ways an elector may vote, on the cumulative system of voting, when there are p candidates for q seats.

8. Shew that in any plane triangle

$$(1.)\qquad \cos A+\cos B+\cos C=1+\frac{r}{R}.$$

$$(2.)\qquad \frac{\cot B+\cot C}{\cot\frac{1}{2}B+\cot\frac{1}{2}C}+\frac{\cot C+\cot A}{\cot\frac{1}{2}C+\cot\frac{1}{2}A}+\frac{\cot A+\cot B}{\cot\frac{1}{2}A+\cot\frac{1}{2}B}=1.$$

$$(3.)\qquad \frac{a\sin A+b\sin B+c\sin C}{a\cos A+b\cos B+c\cos C}=R\frac{a^2+b^2+c^2}{abc}.$$

9. Given the equations to three straight lines in trilinear co-ordinates, find the condition that they be concurrent; and deduce the condition that two straight lines be parallel.

The extremities of a line of fixed length which slides along a fixed line are joined to two fixed points. Find the locus of the intersection of the joining lines. Also find the equations to the asymptotes of the locus.

10. Find an expression for the anharmonic ratio of the pencil

$$\beta-l\gamma=0\quad \beta-m\gamma=0\quad \beta-n\gamma=0\quad \beta-p\gamma=0.$$

Four fixed conics circumscribe the triangle of reference and have a fourth point in common; a variable conic S circumscribes the triangle of reference and meets each of the four fixed conics in a fourth point, prove that the four fourth points of intersection considered as a tetrad upon S have a constant anharmonic ratio.

11. Prove Leibnitz's theorem for expanding $\left(\frac{d}{dx}\right)^n uv$.

State the corresponding general theorem for expanding $\phi\left(\frac{d}{dx}\right)uv$.

Eliminate by differentiation both constants and functional forms from the equations

$$y=\log(a+b\sin x)$$
$$u=e^{x}f(x+y)+e^{y}F(x+y).$$

12. Give the theory of the evaluation of $\frac{\phi(x)}{\psi(x)}$ when $\phi(x)$ and $\psi(x)$ vanish or become infinite simultaneously.

Evaluate

$$\underset{x=0}{L}\,(\cos mx)^{\operatorname{cosec}^2 nx}$$

and

$$\underset{x=0}{L}\,\frac{e^{\cos mx}-e^{\cos nx}}{\sin^2 x}.$$

Friday, 14*th April* 1882.—1 *to* 4 *o'clock.*

1. Three points A, B, C are in one straight line, and a circle is drawn with A as centre. Find the locus of the intersection of the straight line passing through B and one extremity of a diameter of the circle, and the straight line passing through C, and the other extremity of the diameter.

2. Show that the equations

$$x=A_1p+B_1q+C_1$$
$$y=A_2p+B_2q+C_2$$
$$z=A_3p+B_3q+C_3$$

represent a plane; and find the condition that two planes specified in this way shall be perpendicular.

What path on a plane must one follow in order that three non-intersecting telephone wires overhead may always *appear* to intersect?

3. Find the maximum value of $\left(\frac{a}{x}\right)^{x}$.

Find the radius of curvature for the following curves

(1.) $xy=a^2$

(2.) $r=a^{\theta}$.

4. Prove that the radius of curvature of a curve is given by

$$\rho=p+\frac{d^2p}{d\psi^2}.$$

Prove that in any closed oval curve

$$\int_0^{2\pi}r^2d\psi+\int_0^{2\pi}r^2d\theta=2\int_0^{2\pi}p^2d\psi.$$

5. Investigate an expression for u_{x+n} in terms of u_x and its successive differences.

Sum the series whose x^{th} terms are

(1.) $$\frac{1}{x(x+1)(x+2)\ldots(x+n)}$$

(2.) $$\frac{n(x+1)(n+2)\ldots(n+n-2)}{1\cdot2\cdot3\ldots(x-1)}.$$

6. Investigate a quadratic equation for the maximum and minimum radii vectores of the section of the quadric

$$ax^2+by^2+cz^2+2fyz+2gzx+2hxy=d.$$

by the plane

$$lx+my+nz=0.$$

Deduce from your result the planes of circular section for the quadric

$$ax^2+by^2+cz^2=d.$$

7. Evaluate

$$\int e^x \frac{x}{(1+x)^2}dx$$

$$\int \frac{dx}{2+\cos x}$$

$$\int \frac{e^{a\tan^{-1}x}dx}{(1+x^2)^{\frac{3}{2}}}$$

8. Trace the curve

$$(x^2+y^2)^2(b^2x^2+a^2y^2)=(a^2-b^2)^2x^2y^2\ ;$$

and find its area.

9. An oblique cone is formed by a plane which cuts a right circular cone at a distance d from the vertex and is inclined at an angle a to the axis; find the area of the curved surface of the oblique cone.

10. Integrate

(1.) $$\frac{dy}{dx}+y\cos x=\frac{\sin 2x}{2}.$$

(2.) $$xdx+ydy+\frac{xdy-ydx}{x^2+y^2}=0.$$

(3.) $$y\frac{d^2y}{dx^2}+\left(\frac{dy}{dx}\right)^2=1.$$

11. Show that the solution of the linear equation

$$\frac{d^2y}{dx^2}+P\frac{dy}{dx}+Qy=R,$$

can be reduced to quadratures if a particular integral of

$$\frac{d^2y}{dx^2}+P\frac{dy}{dx}+Qy=0$$

be known.

Solve the equation

$$\frac{d^2y}{dx^2}+x\frac{dy}{dx}-y=f(x).$$

12. Explain the idea of *the envelope* of a system of curves, and state the analytical method of determining it

1*st.* When the Equation to the system is given.

2d. When its Differential Equation is given.

Find the envelope of a series of parabolas whose equation is

$$y=x\tan a-\frac{k}{\cos^2 a}x^2,$$

where a is the variable parameter.

APPLIED MATHEMATICS.

Saturday, 15th April 1882.—9 *to* 12 *o'clock.*

Examiner—Dr MACFARLANE.

Not more than nine questions to be selected.

1. A point moves in a plane curve ; find the expressions for the components of the velocity and of the acceleration along and perpendicular to the radius vector respectively.

Shew that the investigation can be simplified by taking $\rho=r\cdot\theta$, where r denotes the Tensor and θ the Versor of the radius vector.

2. Compound two Simple Harmonic Motions having their amplitudes unequal and in different directions, the ratio of whose periods is 3 to 1.

Shew what the equation becomes, when the difference of epoch of the two components is zero ; and trace the curve in this case.

3. Find the locus of the vertex of a jet of water issuing under constant pressure, when the direction of emission is varied.

4. Find the polar differential equation to the path described by a body moving under the influence of a central force.

Determine the law of the force when the body describes the curve $r=a\left(\cos\frac{\theta}{2}\right)^{-2}$, the centre of force being at the pole.

5. At a straight incline on a railway a descending train is attached by a rope passing round a pulley to an ascending train, and so that the rope is on either side parallel to the rails. Find, taking into account the friction of the trains on the rails, and of the rope on the pulley, the following :—

(1.) The condition that the system may be able to move under the action of gravity alone.

(2.) The velocity which would be acquired when the descending train reached the bottom, supposing that gravity were sufficient and unrestrained.

(3.) The amount of work performed by an engine in making the transfer, the action of gravity not being sufficient.

(4.) The Tension of the rope.

6. Form the equations of equilibrium of a flexible chain under the action of forces which are in one plane :

What must be the law of the line-density, in order that the chain may, gravity being the only applied force, assume the form of a curve in which the tangent of the angle which the tangent line makes with the horizontal is proportional to the length of the curve measured from its lowest point ?

7. Analyse the homogeneous strain

$$\begin{vmatrix} A & b & c \\ d & E & f \\ g & h & I \end{vmatrix}$$

into the pure strain and the rotational strain of which it is composed.

8. Find the attraction of a circular disc of uniform density on a particle situated in its axis.

Two circular plates are placed parallel and opposite to one another, and so that the distance between them is small compared with the radius of either. The inner surfaces are charged uniformly, the one with positive, the other with negative electricity. Find the attraction on a small charge of electricity situated between the plates.

9. Find the form of the equipotential surfaces for charges of electricity 1 and $-\frac{1}{2}$ situated at a distance of 3 centimetres apart. Shew what the surface becomes in the case of the potential having the value zero.

Find the law of the density in the region where the law of the potential is

(1.) $V = \dfrac{C}{\sqrt{x^2+y^2+z^2}}$.

(2.) $V = C(x^2+y^2+z^2)$.

(3.) $V = \log(xyz)$.

10. A sheet of paper, folded in the form of a cone but so as to have a small aperture at the apex, and supported so that the axis of the cone

is vertical, is filled with mercury; find the time required for the mercury to empty out.

11. A globule of mercury, immersed in an insulating liquid, is charged with electricity; find the pressure at a point in its interior.

12. State and prove Fourier's Theorem.

Apply the theorem to expand θ^2 in a series of cosines or sines of multiples of θ.

Saturday, 15th April 1882.—1 *to* 4 *o'clock.*

Examiner—Professor TAIT.

Eight questions only to be attempted.

1. Show how, from Newton's Second Law, to form the equations of motion of a particle under any given forces.

Form the equation, and integrate it, when a mass is set in motion by regular impacts of numerous equal minute particles all moving in the same direction, with a common velocity, and adhering after impact.

2. Show how to calculate the pressure inside a rain-drop; and how it will be modified when the drop is charged to a given electric potential.

3. Calculate the appearance presented by a great number of straight, parallel, polished wires exposed to sunlight.

4. Form the equation for the propagation of plane waves of condensation in a fluid. Show how to take account of the thermal effects of sudden changes of density.

5. Define the lines of equal temperature, and the adiabatic lines, in Watt's diagram; and show how the diagram indicates for any engine (α.) The work done in a cycle; (β.) The heat taken in; (γ.) The amount of needless dissipation.

6. Assuming the general equation of the potential, transform it so as to apply to a cylindrical distribution symmetrical about an axis. From the integral find the capacity, per foot, of a submarine cable of given materials and dimensions.

7. Assuming the equations

$$A\dot{\omega}_1+(C-B)\omega_2\omega_3=0, \text{ etc.},$$

explain fully the nature of the motion of an ill-thrown quoit.

8. Find the locus of the centre of pressure on a circular disc whose centre is fixed at a given depth under still water.

9. A homogeneous incompressible fluid rotates about an axis under the action of no forces. How must the velocity depend on the distance from the axis that the motion may *not* be vortical; what is the expression for the velocity-potential; and what will be the distribution of pressure?

10. Assuming the equation

$$\frac{dv}{dt}=k\frac{d^2v}{dx^2}$$

for plane heat-waves, show how to find the quantity k for the upper portion of the earth's crust, from weekly observations of temperature at definite distances from the surface.

11. Show how to calculate from experimental data (indicating what these are) the amount of heat developed by a given sudden compression of a liquid.

LITERATESHIP IN ARTS.

[The questions at the examinations for the title of Literate in Arts were the same in each subject as for the degree of Master of Arts, except the following, which is not included in the subjects for the Degree.]

THEORY, HISTORY, AND ART OF EDUCATION.

Thursday, 13th April 1882.—10 *to* 1 *o'clock.*

1. State the two leading principles of Methodick, and show *fully* how these flow from the nature of the Human Intelligence.

2. Apply the rules of Method given in the Lectures to the teaching of any *one* of the following subjects :—

Elementary Physiology.
English Grammar.
Arithmetic.

Write a brief Essay on either—

1. The relation in which intellectual discipline stands to moral discipline ;

Or,

2. The Humanistic element in education—
   (*a*) What it is.
   (*b*) Its value and place relatively to the sense-realistic.

HISTORY.

1. State briefly the leading ideas of Roman education at its different epochs.

2. Criticise any portion of Quintilian which you think worthy of approbation or the reverse.

3. Shew fully in what respects Locke's treatise, "Conduct of the Human Understanding," affects his views as to the cultivation of the Intellect as these are stated in the "Thoughts on Education."

4. Summarise Comenius' rules for learning Easily, Surely, and Soundly.

5. Criticise any portion of Herbert Spencer on Intellectual Education with which you disagree.

II.—DEGREE IN DIVINITY—DEGREE OF B.D.

DEPARTMENT I.

I. APOLOGETIC THEOLOGY.

3d April 1882.—2 *to* 5 *o'clock.*

Examiners—Prof. FLINT and Rev. J. PATRICK, B.D.

ANTI-THEISTIC THEORIES.

1. Give an account of the Materialism of Epicurus, and show in what respect it differs from that current in this age.

2. What are the scientific principles or assumptions on which Materialism is based? Examine its explanation of the phenomena of (1) life, (2) conscience, and (3) consciousness.

3. Account for the prevalence or revival of Pessimism, and criticise the views of the most noted of the School.

4. State and examine the leading points in the teaching of Comte and his followers.

5. Define Pantheism, and point out its relation to (1) Deism, (2) Theism, (3) Atheism, and (4) Polytheism.

6. Classify the various forms of Pantheism, and illustrate your answer by reference to Hindu and Greek Pantheism, as well as to more recent systems.

7. What is Agnosticism? Examine the principles which are assumed by its exponents. Is it compatible with Theism?

EVIDENCES OF CHRISTIANITY.

1. To what extent, and from what causes, has the position of the Christian apologist altered since the days of Butler and Paley?

2. Give in outline what you regard as a satisfactory scheme of the Evidences of Christianity.

3. Examine objections to Christianity based on the position that Revelation is impossible or unnecessary.

4. Mention various views in regard to Messianic prophecy. Which do you regard as the best for Apologetic purposes?

5. Criticise the attempts that have been made to eliminate (1) The Historical element (Strauss), and (2) the Supernatural (Renan) from the Gospels.

6. Discuss the bearing of the authenticity of the Gospels and Epistles on Christian Evidences, and remark on the theory that Christian doctrine as therein presented is due to the reconciliation of Pauline and Petrine antagonism.

7. Examine the attempts that have been made to explain the origin of Christianity from the operation of merely natural causes, and remark

on the statement that "Christianity is the highest development of the religious consciousness, but that is all."

8. "It is foolish to put miracles in the foreground as an evidence of Christianity." Remark on this, stating what you regard as the place and function of Miracles in Apologetics.

II. HEBREW.

Tuesday, April 4, 1882.—10 *to* 1 *o'clock.*

Examiners—Professor ADAMS and Rev. THOS. ADAMSON, B.D.

I. 1. Translate—

a. 1 Samuel xxii. 15—

הַיּוֹם הַחִלֹּתִי לִשְׁאוֹל־לוֹ בֵּאלֹהִים חָלִילָה לִי אַל־יָשֵׂם הַמֶּלֶךְ בְּעַבְדּוֹ דָבָר בְּכָל־בֵּית אָבִי כִּי לֹא־יָדַע עַבְדְּךָ בְּכָל־זֹאת דָּבָר קָטֹן אוֹ גָדוֹל.

Or, 1 Samuel xxiii. 26—

וַיֵּלֶךְ שָׁאוּל מִצַּד הָהָר מִזֶּה וְדָוִד וַאֲנָשָׁיו מִצַּד הָהָר מִזֶּה וְיָהִי דָוִד נֶחְפָּז לָלֶכֶת מִפְּנֵי שָׁאוּל וְשָׁאוּל וַאֲנָשָׁיו עֹמְרִים אֶל־דָּוִד וְאֶל־אֲנָשָׁיו לְתָפְשָׂם.

b. 1 Sam. xxvii. 10-12 inclusive—

וַיֹּאמֶר אָכִישׁ אַל־פְּשַׁטְתֶּם הַיּוֹם וַיֹּאמֶר דָּוִד עַל־נֶגֶב יְהוּדָה וְעַל־נֶגֶב הַיְרַחְמְאֵלִי וְאֶל־נֶגֶב הַקֵּינִי: וְאִישׁ וְאִשָּׁה לֹא־יְחַיֶּה דָּוִד לְהָבִיא גַּת לֵאמֹר פֶּן־יַגִּדוּ עָלֵינוּ לֵאמֹר כֹּה־עָשָׂה דָוִד וְכֹה מִשְׁפָּטוֹ כָּל־הַיָּמִים אֲשֶׁר יָשֵׁב בִּשְׂדֵה פְלִשְׁתִּים: וַיַּאֲמֶן אָכִישׁ בְּדָוִד לֵאמֹר הַבְאֵשׁ הִבְאִישׁ בְּעַמּוֹ בְיִשְׂרָאֵל וְהָיָה לִי לְעֶבֶד עוֹלָם.

Or, 1 Samuel xxviii. 15-17 inclusive—

וַיֹּאמֶר שְׁמוּאֵל אֶל־שָׁאוּל לָמָּה הִרְגַּזְתַּנִי לְהַעֲלוֹת אֹתִי וַיֹּאמֶר שָׁאוּל צַר־לִי מְאֹד וּפְלִשְׁתִּים | נִלְחָמִים בִּי וֵאלֹהִים סָר מֵעָלַי וְלֹא־עָנָנִי עוֹר גַּם בְּיַד הַנְּבִאִים גַּם בַּחֲלֹמוֹת וָאֶקְרָאֶה לְךָ לְהוֹדִיעֵנִי מָה אֶעֱשֶׂה: וַיֹּאמֶר שְׁמוּאֵל וְלָמָּה תִּשְׁאָלֵנִי וַיהוָה סָר מֵעָלֶיךָ וַיְהִי

עָרֵךְ׃ וַיַּעַשׂ יְהוָה לוֹ כַּאֲשֶׁר דִּבֶּר בְּיָדִי וַיִּקְרַע יְהוָה אֶת־הַמַּמְלָכָה מִיָּדֶךָ וַיִּתְּנֶהָ לְרֵעֲךָ לְדָוִד׃

c. What emendations of the text in the last two passages are suggested by the reading in the Septuagint?

2. Translate, with explanation of the syntax—

a. 1 Samuel xviii. 15.

וַיַּרְא שָׁאוּל אֲשֶׁר־הוּא מַשְׂכִּיל מְאֹד וַיָּגָר מִפָּנָיו׃

b. 1 Samuel xviii. 29.

וַיֹּאסֶף שָׁאוּל עוֹד יָרֵא מִפְּנֵי דָוִד וַיְהִי שָׁאוּל אוֹיֵב אֶת־דָּוִד כָּל־הַיָּמִים׃

c. 1 Samuel xxiii. 3.

וַיֹּאמְרוּ אַנְשֵׁי דָוִד אֵלָיו הִנֵּה אֲנַחְנוּ פֹּה בִּיהוּדָה יְרֵאִים וְאַף כִּי־נֵלֵךְ קְעִלָה אֶל־מַעַרְכוֹת פְּלִשְׁתִּים׃

II. 1. Translate and describe the structure of Psalm cxi.

א הַלְלוּ יָהּ ׀
אוֹדֶה יְהוָה בְּכָל־לֵבָב
בְּסוֹד יְשָׁרִים וְעֵדָה׃
2 גְּדֹלִים מַעֲשֵׂי יְהוָה
דְּרוּשִׁים לְכָל־חֶפְצֵיהֶם׃
3 הוֹד־וְהָדָר פָּעֳלוֹ
וְצִדְקָתוֹ עֹמֶדֶת לָעַד׃
4 זֵכֶר עָשָׂה לְנִפְלְאֹתָיו
חַנּוּן וְרַחוּם יְהוָה׃
ה טֶרֶף נָתַן לִירֵאָיו
יִזְכֹּר לְעוֹלָם בְּרִיתוֹ׃
6 כֹּחַ מַעֲשָׂיו הִגִּיד לְעַמּוֹ
לָתֵת לָהֶם נַחֲלַת גּוֹיִם׃
7 מַעֲשֵׂי יָדָיו אֱמֶת וּמִשְׁפָּט
נֶאֱמָנִים כָּל־פִּקּוּדָיו׃
8 סְמוּכִים לָעַד לָעוֹלָם
עֲשׂוּיִם בֶּאֱמֶת וְיָשָׁר׃
9 פְּדוּת ׀ שָׁלַח לְעַמּוֹ
צִוָּה לְעוֹלָם בְּרִיתוֹ
קָדוֹשׁ וְנוֹרָא שְׁמוֹ׃
רֵאשִׁית חָכְמָה ׀ יִרְאַת יְהוָה
שֵׂכֶל טוֹב לְכָל־עֹשֵׂיהֶם
תְּהִלָּתוֹ עֹמֶדֶת לָעַד.

2. Translate—

a. Psalm cxiii. 5-8 inclusive.

מִי כַּיהוָה אֱלֹהֵינוּ — מַקִּימִי מֵעָפָר דָּל
הַמַּגְבִּיהִי לָשָׁבֶת : — מֵאַשְׁפֹּת יָרִים אֶבְיוֹן :
הַמֹּשִׁבִי עֲקֶרֶת הַבַּיִת — לְהוֹשִׁיבִי עִם־נְדִיבִים
בַּשָּׁמַיִם וּבָאָרֶץ : — עִם נְדִיבֵי עַמּוֹ :

b. Psalm cxiv. 7 and 8.

מִלִּפְנֵי אָדוֹן חוּלִי אָרֶץ — הַהֹפְכִי הַצּוּר אֲגַם־מָיִם
מִלִּפְנֵי אֱלוֹהַּ יַעֲקֹב : — חַלָּמִישׁ לְמַעְיְנוֹ־מָיִם.

c. Psalm cxvi. 6, 7, 12, and 15 to end.

שֹׁמֵר פְּתָאיִם יְהוָה — אֲנִי עֲבְדֶךָ בֶּן־אֲמָתֶךָ
הַלּוֹתִי וְלִי יְהוֹשִׁיעַ : — פִּתַּחְתָּ לְמוֹסֵרָי :
שׁוּבִי נַפְשִׁי לִמְנוּחָיְכִי — לְךָ אֶזְבַּח זֶבַח תּוֹדָה
כִּי־יְהוָה גָּמַל עָלָיְכִי : — וּבְשֵׁם יְהוָה אֶקְרָא :
מָה־אָשִׁיב לַיהוָה — נְדָרַי לַיהוָה אֲשַׁלֵּם
כָּל־תַּגְמוּלוֹהִי עָלָי. — נֶגְדָה־נָּא לְכָל־עַמּוֹ :
יָקָר בְּעֵינֵי יְהוָה — בְּחַצְרוֹת ו בֵּית יְהוָה
הַמָּוְתָה לַחֲסִידָיו : — בְּתוֹכֵכִי יְרוּשָׁלָם
אָנָּה יְהוָה כִּי־אֲנִי עַבְדֶּךָ — הַלְלוּ־יָהּ.

3. *a.* Parse the verbs in the passages in the last question.

b. Note and explain unusual suffixes in these verses, and remark on the construction פִּתַּחְתָּ לְמוֹסֵרָי in Psalm cxvi. 16.

c. Is any inference as to the date of these psalms deducible from the language in the extracts given?

III. 1. Translate Isaiah ii. 12-17 inclusive—

כִּי יוֹם לַיהוָה צְבָאוֹת עַל כָּל־גֵּאֶה וְרָם וְעַל כָּל־נִשָּׂא וְשַׁפָּל : וְעַל

כָּל־אַרְצֵי הַלְּבָנוֹן הָרִמִּים וְהַנִּשְׂאִים וְעַל כָּל־אַלּוֹנֵי הַבָּשָׁן: וְעַל
כָּל־הֶהָרִים הָרִמִּים וְעַל כָּל־הַגְּבָעוֹת הַנִּשָּׂאוֹת: וְעַל כָּל־מִגְדָּל נָבֹהַּ
וְעַל כָּל־חוֹמָה בְצוּרָה: וְעַל כָּל־אֳנִיּוֹת תַּרְשִׁישׁ וְעַל כָּל־שִׂכְיוֹת
הַחֶמְדָּה: וְשַׁח גַּבֹהוּת הָאָדָם וְשֻׁפַּל רוּם אֲנָשִׁים וְנִשְׂגַּב יְהוָה
לְבַדּוֹ בַּיּוֹם הַהוּא.

What renderings have been given of שְׂכִיּוֹת הַחֶמְדָּה?

2. Translate Isaiah v. 26-30 inclusive—

וְנָשָׂא־נֵס לַגּוֹיִם מֵרָחוֹק וְשָׁרַק לוֹ מִקְצֵה הָאָרֶץ וְהִנֵּה מְהֵרָה קַל
יָבוֹא: אֵין־עָיֵף וְאֵין־כּוֹשֵׁל בּוֹ לֹא יָנוּם וְלֹא יִישָׁן וְלֹא נִפְתַּח אֵזוֹר
חֲלָצָיו וְלֹא נִתַּק שְׂרוֹךְ נְעָלָיו: אֲשֶׁר חִצָּיו שְׁנוּנִים וְכָל־קַשְׁתֹתָיו
דְּרֻכוֹת פַּרְסוֹת סוּסָיו כַּצֹּר נֶחְשָׁבוּ וְגַלְגַּלָּיו כַּסּוּפָה: שְׁאָגָה לוֹ כַּלָּבִיא
וּשְׁאָג כַּכְּפִירִים וְיִנְהֹם וְיֹאחֵז טֶרֶף וַיְפַלֵּט וְאֵין מַצִּיל: וְיִנְהֹם עָלָיו
בַּיּוֹם הַהוּא כְּנַהֲמַת־יָם וְנִבַּט לָאָרֶץ וְהִנֵּה־חֹשֶׁךְ צַר וָאוֹר חָשַׁךְ
בַּעֲרִיפֶיהָ:

Have you any remarks, explanatory or critical, to offer on this passage?

IV. Translate into Hebrew—

1. And the eldest brother heard when he spake to the men, and his anger was kindled against David; and he said, Why camest thou down hither, and with whom hast thou the little flock?
2. Why art thou alone, and no man with thee? Whose son is the youth? By thy life I know not. Inquire whose son the stripling is. And David said, I am the son of thy left servant Jesse, the Bethlehemite.
3. And now swear to me by the Lord that thou wilt not cut off my seed after me; and he said, The Lord forbid that I should do this thing.
4. And he said to David, God hath to-day delivered thine enemy into thy hand; and now let me strike him, I pray thee, with the spear, even to the earth with one stroke. But David said, Destroy him not; as the Lord liveth, the

Lord shall smite him, or his day shall come to die, or he shall descend into battle and perish. And it came to pass, about ten days after, that the Lord smote the man that he died; and when David heard that the man was dead, he said, Blessed be the Lord who hath restrained his servant from wickedness.

DEPARTMENT II.

I. SYSTEMATIC THEOLOGY.

4th April 1882.—2 *to* 5 *o'clock.*

Examiners—Prof. FLINT and Rev. J. PATRICK, B.D.

DIVINE NATURE AND ATTRIBUTES.

1. What are the various views that have been held as to the relation of the Divine attributes to the Divine Essence and to each other?

2. What are the main problems connected with the doctrine of the Omniscience of God?

3. State what you consider to be the Scriptural conception of the Divine justice. Can it be resolved into benevolence?

4. Comment on the following:—

(1.) "To human reason the Personal and the Infinite stand out in irreconcilable antagonism."

(2.) "God cannot do all that is possible in the abstract but all that is possible for him."

(3.) "To ascribe truth or veracity to God is to destroy the unity of the Divine Essence, and degrade God to the limitations and changes of time."

PROVIDENCE.

1. Shew what views of God and His relation to the world must be adopted if the doctrine of a Providence be rejected.

2. What is the Scriptural doctrine of Preservation? Contrast it with others known to you.

3. Point out the relation of the Providence of God to (1) The material universe, (2) Rational free agents, and indicate how it is to be distinguished from the working of the Holy Spirit.

4. State the arguments that may be adduced to prove the doctrine of a Providence, and examine the objections that are brought against it.

TRINITY.

1. To what extent may the doctrine of a Trinity be proved from the Old Testament? What views have been held as to the Mal'ach or angel of the Lord?

2. Exhibit the Scriptural proofs for the doctrine of the Eternal Sonship, and examine the passages that are adduced against it.

3. What points were decided by the Council of Nice in regard to (1) Sabellianism, (2) Arianism, (3) Semi-Arianism, and (4) The mutual relations of the Persons of the Trinity.

4. Remark on the following :—

(1.) "God may not be Triune in essence, though He has revealed Himself as a Trinity."

(2.) "As distinction of persons is necessary to self-consciousness in us, so also in God. If God be not a Trinity, He cannot be a Person."

Sin.

1. What is the Scriptural view of the nature of sin as proved by the Hebrew and Greek words used to define or express it?

2. "Compare the doctrine of the Reformed, Arminian, Socinian, and Roman confessions on the result of Adam's transgression in regard to (1) Original righteousness, (2) Inherited guilt, and (3) Total corruption.

3. Examine the theories which explain sin as (1) A negation due to limitation of being, (2) As the necessary condition of the existence of virtue.

4. Mention the arguments that have been adduced to show that the existence of sin does not conflict with the goodness of God, and criticise these statements :—

(1.) "God cannot prevent sin in a moral system."

(2.) "The universe is better with sin than without it."

II. CHURCH HISTORY.

5th April 1882.—10 *to* 1 *o'clock.*

Examiners—Professor Taylor and Rev. John Patrick, B.D.

1. Who were the chief polemical writers against Christianity during the first four centuries? Give some account of their works.

2. What are the common elements in all forms of Gnosticism? Classify the different schools, and describe with some detail the teaching of Marcion.

3. Sketch the life and writings of Tertullian, or Clement of Alexandria, or Origen.

4. Mention with dates the main decrees issued in favour of Christianity by the Empire. What was the position of Paganism at the end of the fourth century?

5. What was the attitude of the Neoplatonic party to Christianity? Refer to the career of Julian.

6. Who were the leading apologists of Christianity in the first three centuries? Characterise their works.

7. Describe the rise and progress of Monasticism.

8. Sketch the history of opinion on the relation of the Son to the Father in the Ante-Nicene Church.

9. Enumerate with dates the chief stages in the Arian controversy, from its rise till the first Council of Constantinople.

10. State briefly what you know of any *four* of the following:—Manes, Meletius, Donatus, Diocletian, Cyprian, Novatian, Novatus, Libanius, Paul of Samosata.

11. What Acts were passed previous to 1560 in order to check the progress of the Reformation?

12. Give some account of the condition of the Church in Scotland during the period 1572–5.

13. Give a succinct account of the contents either of the First or of the Second Book of Discipline.

14. Date and purport of (1) the Concordat of Leith; (2) The five "Black Acts."

III. BIBLICAL CRITICISM.

April 5.—*Wednesday*, 2 *to* 5 P.M.

Examiners—Professor CHARTERIS and Rev. T. ADAMSON, B.D.

1. In the following list of authorities cited by Tischendorf on Romans v. 1, for the reading ἔχωμεν are ℵ A B* C D E K L. In that list name and describe an uncial MS. (α) of the 4th, (β) of the 5th, (γ) of the 9th centuries.

2. What advances did Mill and Lachmann make in the attempt to form a pure New Testament text?

3. What value have the collations by Scholz, Wetstein, and Matthei of New Testament MSS.?

4. What is peculiar in Lachmann's text of the New Testament?

5. Eusebius does not expressly say that Hegesippus used New Testament Canonical Books, but mentions an Apocryphal one as being used by him. (α) What inference has been drawn from this, and how has it been met? (β) What evidence do the fragments of Hegesippus afford in this matter?

6. (α) Did Justin Martyr use the Canonical Gospels? (β) What rank and value did he give to his authorities? (γ) What is the historical importance of his testimony?

7. Describe the nature and value of Ephreme's newly-discovered Commentary on Tatian's Diatessaron.

8. What books of the New Testament are wanting in the Canon (α) of the Peshito, and (β) of the old Latin version?

9. Apply the theological system of Marcion to show the value of the evidence he affords by his Canon to the New Testament, and by the

Gospel he used to the Gospel according to Luke, and to the Canonical Gospels generally.

10. What value does Basilides give to the New Testament Canonical Books as compared with those of the Old Testament?

11. Give the date, nature, and value of the Gnostic Testimonies to the Gospels and Epistles of the New Testament, explaining how it came out that in certain respects their testimonies are earlier and more explicit than those of orthodox writers.

12. Upon what did Christians of the second century rest their acceptance of books as canonical? Give instances.

13. What argument is drawn from the laws regarding Priests and Levites, as given in the various books of the Pentateuch by critics of the Reuss and Wellhausen school?

14. What argument is founded by the same school on the announcement regarding a king in Deuteronomy, as compared with the narratives in the historical books?

15. Compare the systems of dealing with Old Testament history adopted by Ewald and Kuenen respectively.

III.—DEGREES IN LAW.

LAW GRADUATION EXAMINATION.

I. CIVIL LAW.—First Paper.

Thursday, 30th June 1881.—10 to 1 *o'clock.*

Candidates for B.L. need not answer more than two questions in each of the following four groups: candidates for LL.B. are expected to answer them all.

First Group—History.

1. Livy speaks of the Twelve Tables as *fons publici privatique juris*: what (approximately) was their date? what induced their compilation? what were their sources? what (generally) was the nature of their provisions? and on whom lay the duty of interpreting them?

2. Give some account of the Praetor's Edict, its form, and general tendency.

3. Describe the sequence of the Justinianian legislation, and the source of each of the component parts of what is now called the *Corpus Juris Civilis.*

Second Group—Institutes.

4. How was citizenship acquired in the time of Gaius and Ulpian, and what were the prerogatives of a citizen in so far as the private law was concerned?

5. What conditions were required to make a marriage valid by the Justinianian law? How did marriage affect the pecuniary relations of the parties?

6. Before the time of Antoninus Pius adrogation of pupils was not allowed: why was that? Said emperor permitted it on certain conditions: what were they?

THIRD GROUP—INSTITUTES.

7. When Titius built on his own ground with the materials of Maevius, he (Titius) thereby acquired the ownership of the materials: what remedy had Maevius?

8. Mention some of the points in which a military testament had an advantage over that of a civilian.

9. Enumerate and explain the different ways mentioned by Gaius and Justinian of putting an end to an obligation.

FOURTH GROUP—INSTITUTES AND DIGEST.

10. In what respect did the position of a *malae fidei possessor* differ from that of a *bonae fidei possessor* as regarded restitution of fruits and profits and claims in respect of outlays (*impensae*)? Was either of them entitled to a *rei vindicatio*, or other declaration of property, on his own account?

11. Give definitions and illustrations of *stipulatio certa*, *incerta*, *pura*, *in diem concepta*, *conditionalis*.

12. What were the limitations of (or exceptions to) the rule—*alter alteri stipulari non potest?*

SECOND PAPER.

Thursday, 30th June 1881.—2 *to* 4 *o'clock.*

Candidates for B.L. need not answer more than two of the following questions, nor those for LL.B. more than four.

1. Sketch the history and explain the conditions of usucapion and prescriptive possession as described in the Institutes of Gaius and Justinian.

2. Justinian, in Inst. ii. 20, c. 2, says that a new form of testament was introduced by the Praetor's Edict: what was it that the Praetor really did in this direction? Give details, so far as they can be gathered from Gaius.

3. Explain how and when *fideicommissa* came to be introduced, what were their advantages, and how they were enforced.

4. Describe the literal obligations of the classical and Justinianian periods respectively.

5. What was the purpose of the Aquilian law? Indicate the provisions of each of its three chapters? Explain the difference between the *actio directa* and the *actio utilis* to which it gave rise.

6. Enumerate and describe the different clauses of a *formula* under the so-called formular system of procedure.

Construct (1) the *formula* appropriate to the case of the lender of a sum of money suing the borrower for repayment, and (2) that appropriate to the case of the vendor of a slave suing the vendee for the price.

II. SCOTS LAW.—Part I.

Friday, 1st July 1881.—10 *to* 1 *o'clock.*

1. What has to be proved in order to establish the fact of marriage, and what evidence is accepted as sufficient?

2. What is the *jus mariti?* and how far had it been modified by recent legislation prior to the present year?

3. To what extent are persons under age entitled to manage their own affairs?

4. When, and to what extent, is a seller who has not granted express warranty responsible for the quality of the article sold?

5. Underwriters on ship paid the owners as for total loss of (1) a ship abandoned at sea damaged by stress of weather, (2) a ship sunk at sea by collision, (3) for partial loss to a ship damaged by collision caused by the fault of another belonging to the same owner as the damaged vessel. The first ship was brought into port, earned freight, and was repaired; in both the other cases the owners took statutory proceedings for limiting their liability and for ranking claims of damage. State the rights of the underwriters to freight in the first, and damage in the second and third cases, and explain the principles which govern these cases.

6. What duty does a shipmaster owe to the owner of goods on board his vessel, and what power has he of dealing with them?

7. In cases of jettison what subjects contribute, and how is their value and that of the jettisoned property ascertained?

8. In what ways may servitudes be constituted and extinguished?

9. What are the ways in which a person may be made notour bankrupt?

10. What are the various forms of diligence by which a creditor may attach his debtor's estate? By what diligence (if any) can cash in a debtor's pocket be attached?

Part II.

Friday 1st July 1881.—2 *to* 4 *o'clock.*

1. What is necessary to complete a contract of sale? When does the property pass, and when the risk?

2. Is there anything peculiar about an executory contract of sale of a ship where the price is paid by instalments?

3. *A* indebted to *B* on several different grounds of debt, for some of which he had granted security, made various payments from time to time. How are these to be applied?

4. What are a legacy, a donation *inter vivos*, and a donation *mortis causa?* What evidence is required to prove each?

5. May one whose signatnre to a Bill is forged become liable for the sum in the Bill?

6. State the nature of the septennial prescription of cautionary obligations. Are any such obligations not affected by it?

7. What is compensation? and how does it operate (1) when the same person is both creditor and debtor of a bankrupt firm; (2) when a shareholder, from whom calls are demanded, is a creditor of a Limited Company, and an order for winding-up has been pronounced after the date of the calls?

8. Explain the distinction between real and accommodation bills.

III. CONVEYANCING.

Wednesday, 29th June 1881.—10 *to* 1 *o'clock.*

1. (1) Under what circumstances prior to the Infeftment Act of 1845 were lands reckoned "discontiguous," requiring separate Acts of Infeftment; (2) what effect had this on the form of the Instrument of Sasine; and (3) to what extent could the effect of "discontiguity" be got rid of, and how?

2. What constituted a prescriptive title of subjects held feu in 1870, according as the progress started with the title of an heir, a singular successor, or an adjudging creditor, and what difference has the Conveyancing Act of 1874 made in regard to such title in any of these cases?

3. A feued to B, B infeft disponed *a me vel de me* to C, C took infeftment, and dying intestate and unentered was succeeded by his son D; detail the steps by which D could have completed a title to the feu in 1846, in 1866, and now, giving alternative modes, where competent and equally desirable.

4. What difference, if any, would it have made in any of the above cases had B held of the Crown, instead of a subject-superior?

5. In A's Marriage-Contract, A's father settled his estate of Y, in which he was infeft, and A his own estate of Z, in which he was infeft, upon A and B, spouses "in conjunct liferent, for liferent allenarly, and the heirs of the marrrage in fee," and infeftment was given in favour of "A and B in conjunct liferent for liferent allenarly." On A's subsequent sequestration, during his life, to what extent, if any, was either estate attachable by his creditors? State the principle.

6. A, infeft, disponed his estate by delivered deed, which reserved his liferent therein to B and the heirs of his body; whom failing, to C and the heirs of his body; whom failing, to return to him (A) and his heirs whomsoever. No infeftment was taken upon the deed. A having died, predeceased by B and C without issue, A's son G served heir in general to him, and having expede Notarial Instrument on the original Conveyance, disponed to E, who objected to the title. Wherein did the objection lie, and, if valid, how could it be cured?

7. A, by Ante-nuptial Contract of Marriage, conveyed his lands to himself in liferent for liferent allenarly, and to the heirs of the marriage; whom failing, to A's heirs whomsoever in fee; how far is it competent for A, with the consent of his eldest son, to deal with the estate to the prejudice of the other heirs of the marriage? What effect would the subsequent death of B before A, leaving a younger brother, have on such consent; and supposing that there are no "heirs of the marriage," how far is it competent for A to deal with the estate to the prejudice of his heirs whomsoever? State the principle.

8. A disponed to "B and C" (strangers) "and the survivors of them and their heirs," and infeftment was given in these terms:—On B's predecease, how far is it necessary for C to make up any title; and supposing that on the subsequent death of C, the estate is claimed by the heirs-at-law of B and C respectively, who is entitled to it, and how would you complete the title of the successful claimant?

9. A disponed by Contract of Marriage to himself in liferent, and to C, the son of a former marriage, and the children to be born of his present marriage in fee, and infeftment was given in terms of the destination. On A's death, survived by C and another son X, and a daughter Y, how will X and Y make up a title to their respective shares (1) supposing C is alive, and (2) supposing C is dead?

10. Explain the distinction in the terms "Institute," Conditional Institute (proper and constructive), and Substitute, and illustrate the distinction by examples.

11. How did the heir of a creditor in a Bond and Disposition in Security, who had died infeft but intestate, complete a title, (1) prior to the Heritable Securities Act of 1845, and (2) between that Act and the Consolidation Act of 1868?

12. Detail shortly the provisions of the Consolidation Act of 1868 with regard to the succession to Heritable Securities.

N.B.—This question does not extend to the completion of title to such securities.

IV. PUBLIC LAW.

Tuesday, 28th June 1881.—10 *to* 2 *o'clock.*

i. Natural Law.

1. What definition do you give to "Jurisprudence," "Positive Law," "Right," "Liberty"?

2. Give a short explanation of the utilitarian system of Jurisprudence. What objections have been urged against it?

3. What is meant by the *autonomy* of human nature? What evidence have we that our nature is autonomous?

4. "The right to be involves the right to dispose of the fruits of being, *mortis causâ*." Examine this proposition.

5. Explain the distinction between the positive and negative schools of jurisprudence with reference to the sphere of duty.

6. What were the theories of Hobbes and Rousseau respectively regarding the origin of Political Government? In what respects are they objectionable?

7. Criticise Ahrens' doctrine of Equality.

8. Would it be practicable to construct a universal code of Positive Law?

ii. Public International Law.

1. State the doctrine of Recognition, and explain in what relation the other doctrines of International Law, both public and private, stand to it.

2. What are the rights, as to river navigation, of States which have territory situated along the river course? Give historical illustrations.

3. What is comprehended under the term "Contraband of War"?

4. State what you know about Prize Courts. How far can the territory of a neutral be made available for the condemnation of a Prize?

5. What is the *Right of Exterritoriality?* In what cases is it recognised? A fugitive Brazilian slave takes refuge on board an English man-of-war lying in a port of Brazil. Discuss the question whether the Local Authorities have a right to insist on his being delivered up.

6. State the functions of a Diplomatic Agent, and of a Consul. What is an *Exequatur?*

7. What is *Jus Postliminii?* How far has it been applied in International Law to persons, personal property, and real property respectively?

Tuesday, 28th June 1881.—2.30 *to* 4.30 *o'clock.*

iii. Private International Law.

1. What is meant by a conflict of laws?

2. Mention, with illustrations, cases in which the recognition of foreign laws is legitimately excluded.

3. Define "origin" and "domicil" in the Roman, and in the modern sense.

4. What is the rule as to the domicil of a corporation having places of business in several countries?

5. A native of America, domiciled in France, makes a testament there by which he conveys heritable estate situated in Scotland. Questions arise as to the due execution of the testament, the legal capacity of the testator, and the construction of the testament. In what Courts, and on what principles, will these questions severally be determined?

6. To the decision of what questions are the rules of the *lex fori* applicable?

7. By what local law are cases of bankruptcy determined? What, in Savigny's view, is the mode in which real estate, situated in a foreign country and subject to preferable securities, should be brought into the bankruptcy and distributed?

8. Give examples of the modes in which Private International Law tends to be modified by treaty and express legislation.

V. CONSTITUTIONAL LAW AND HISTORY.

Monday, 27th June 1881.—10 *to* 2 *o'clock.*

1. State the principal effects of the Reformation on the English Constitution.

2. "The *slavish* Parliament of Henry VIII. grew into the *murmuring* Parliament of Queen Elizabeth; the *mutinous* Parliament of James I. and the *rebellious* Parliament of Charles I." Illustrate these epithets by facts in the Parliamentary History of the four reigns.

3. Explain the following expressions, stating their historical origin: (1) "Morton's Fork;" (2) "Mr. Cope's Bill and Book;" (3) "The Great Contract;" (4) "The Grand Remonstrance;" (5) "The Cabal;" (6) "Whig," "Tory," "Conservative," "Radical."

4. Trace the history of the Constitutional Law of England with reference to the duration of Parliament.

5. Give an estimate of the influence of one of the following ministers on the English Constitution: (1) Lord Bolingbroke; (2) Sir Robert Walpole; (3) Lord Chatham.

6. Give a list of the principal political works of Edmund Burke, and write a character of him as a statesman.

7. State the chief historical instances of Impeachment, and explain the importance of the right of Impeachment, and the causes of its disuse in modern times.

8. What was the origin of the Privy Council? Explain Sir W. Temple's scheme with reference to it. Describe its functions in the modern Constitution of England.

9. Examine the constitutional position of the English Judges (1) in the reign of the Tudor Monarchs; (2) in the reign of the Stuarts; and (3) after the Revolution Settlement. Illustrate the answer by the conduct of particular Judges.

10. What are the privileges of the members of the House of Commons and the House of Lords respectively?

11. State the changes in the law as to Controverted Elections and Election Petitions.

12. Give an account of the principal alterations in the law as to the electoral franchise, and state what are the present qualifications for a voter (1) in an English County; (2) in an English Burgh; and (3) in a Scottish University.

VI. MEDICAL JURISPRUDENCE.

Monday, 27th June 1881.—2.30 *to* 4.30 *o'clock.*

1. Define Asphyxia, and state the ways in which it may be induced.

2. In a case of drowning, describe the manner in which death is

caused, and mention the *post-mortem* appearances, both external and internal.

3. In a suspected case of poisoning by phosphorus, describe the *post-mortem* appearances of the body.

4. What are the principal chemical tests for Prussic Acid?

Describe particularly any one of them.

5. Describe the method of employing the hydrostatic test in a case of supposed infanticide. Discuss its value, and state the chief objections that have been urged against it.

6. In a trial for child-murder, mention the leading evidences and considerations that would enable a medical witness to form an opinion on the question whether a child has, or has not, been *born alive*.

7. Explain and contrast the legal with the medical view of insanity as affording exemption from criminal responsibility; and state which view would weigh with a jury in a trial for murder.

8. In a trial for child-murder, where the plea of puerperal mania is maintained in defence, what points would Counsel for the panel endeavour to establish in order to elide the charge?

IV.—DEGREES IN MEDICINE.

PRELIMINARY EXAMINATION.

I. ARITHMETIC.

Tuesday, 4th October 1881.—9 *to* 11 *o'clock.*

1. Express in figures *one hundred and nine milllons;* and in words 100026003.

2. Multiply 13579 by 24680, and verify the result by applying one of the recognised tests.

3. Define the *reciprocal* of a given number; and find that of 32·2.

4. Arrange the following fractions in the ascending order of magnitude—

$$\frac{6}{7}, \quad \frac{3}{4}, \quad \frac{4}{5}, \quad \frac{11}{15}, \quad \frac{17}{20}.$$

Find the value of

$$1 - \frac{1}{2} + \frac{1}{2\times 3} - \frac{1}{2\times 3\times 4} + \frac{1}{2\times 3\times 4\times 5}.$$

5. Resolve 10584 into its elementary factors.

Extract the square root of 327184.

6. Divide 1548541·53 by ·00537.

Express ·5925 as a vulgar fraction in its lowest terms.

7. What principal invested at 6 per cent. is required to yield two bursaries, one of the value of £35, the other of the value of £17, 10s.?

8. A town of 241,000 inhabitants is supplied with water at the rate

of 25 gallons per head per day; find the total supply both in volume and in mass for one week. (A gallon of water measures ·16 cubic feet approximately, and weighs 10 lbs. avoirdupois.)

9. A schoolroom is 40 feet long, 26 feet 6 inches broad, and 19 feet 3 inches high. If 80 cubic feet of space and 8 square feet of floor must be provided for each scholar, what is the maximum number of scholars which the room can provide for?

10. A reaping machine works round a rectangular field of grain 357 yards by 216 yards, at the average velocity of 3 miles per hour, the breadth cut by the reaper being 5 feet. How long will it take to cut down the field?

Tuesday, 14th March 1882.—9 *to* 11 *o'clock.*

1. Find the sum and difference of seven millions eight hundred and fifty-six thousand and fourteen, and five millions seventy thousand five hundred and sixty-one.

2. Multiply 567890 by 98765.
Divide 1234567890 by 365.

3. Reduce to a simple fraction
$\frac{1}{2}$ of $\frac{3}{5}$ of $2\frac{3}{4}$ of $1\frac{1}{4}$ of 6.
Add together
$1\frac{2}{3}$, $2\frac{3}{4}$, $3\frac{4}{5}$, $4\frac{5}{6}$, $5\frac{6}{7}$.

4. Find the product of ·00478 × ·0857 × 590.
Divide 105360·3 by ·2103.

5. Find the cube root of 12812904.
Find the square root of 7 to five decimal places.

6. Express one thousand dollars in francs; given that one dollar is equivalent to 4s. $1\frac{1}{2}$d., and one franc to $9\frac{1}{2}$d.

7. Find the cost of electric lighting for three months, with sixty lamps burning on an average eight hours per day, the rate of charge being $2\frac{1}{4}$d. per lamp per hour.

8. Find the number of granite blocks required to pave a street 1 mile long and 16 yards wide, the block being 4 inches broad and 12 inches long.

9. Find the simple and the compound interest on £378 for three years at 5 per cent. per annum.

10. Of the 840 candidates at an examination three-fourths were boys, and one-third of the candidates failed to pass. How many boys must have passed? and what is the greatest number of boys who can have passed?

II. ELEMENTARY MATHEMATICS.

Tuesday, 4th October 1881.—11.30 *to* 1.30 *o'clock.*

1. "A straight line is such that any part will, *however placed*, lie wholly on any other part, if its extremities are made to fall on that other part." Show that the phrase underlined in the above definition is essential to the definition.

If, at a point in a straight line, two other straight lines on the opposite sides of it, make the adjacent angles together equal to two right angles, these two straight lines shall be in one and the same straight line.

2. Define a parallelogram.

If a quadrilateral has two opposite sides equal and parallel, it is a parallelogram.

3. To divide a given straight line into two parts, so that the rectangle contained by the whole, and one of the parts shall be equal to the square on the other part.

4. The angle at the centre of a circle is double of the angle at the circumference on the same base, that is, upon the same arc.

5. If a straight line touch a circle, and from the point of contact a straight line be drawn cutting the circle, the angles which this line makes with the line touching the circle shall be equal to the angles which are in the alternate segments of the circle.

6. Multiply

$$a^2+b^2+c^2-ab+ac+bc \text{ by } a+b-c.$$

Divide

$$x^4-x^2y^2+2xy^3-y^4 \text{ by } x^2+xy-y^2.$$

7. Resolve into factors

$$ab+cd+ac+bd.$$
$$x^2-2x-15.$$
$$m^2-n^2-1-2n.$$

8. Find the value of

$$\{a-(b+c)\}^2\{a-(b-c)\}^2, \text{ and } \sqrt{b^2-4ac},$$

when $a=1, \quad b=3, \quad c=2.$

Simplify

$$\frac{m^3n^3+p^3q^3}{m^2n^2-p^2q^2}.$$

9. Solve

(1) $$\frac{x}{2}-\frac{x}{3}+\frac{x}{4}-\frac{x}{5}=3x-167.$$

(2) $$\left.\begin{aligned}\frac{4}{x}+\frac{5}{y}&=2\\ \frac{9}{x}-\frac{20}{y}&=\frac{1}{2}\end{aligned}\right\}$$

10. A person says that the number of his house is such that its square is equal to the difference of the squares of the numbers of the two contiguous houses. What is the number, *first*, on the supposition that the houses in the street are numbered consecutively; *second*, on the suppo-

sition that the numbers on the one side are odd, and on the other side even?

Tuesday, 14th March 1882.—11.30 *to* 1.30 *o'clock.*

1. If one side of a triangle be produced, the exterior angle shall be greater than either of the interior opposite angles.

Point out the place in the proof where there is a direct appeal to the nature of space.

2. Parallelograms on the same base, and between the same parallels, are equal to one another.

3. To describe a square that shall be equal to a given rectilineal figure.

4. Define a tangent to a circle.

To draw a tangent to a circle from a given point either without or in the circumference of the circle.

5. The opposite angles of any quadrilateral figure inscribed in a circle are together equal to two right angles.

6. Multiply

$$x^3+2x^2-3x+1 \text{ by } x^2-4x+5.$$

Divide

$$x^3-61x-180 \text{ by } x+5.$$

7. Resolve into factors

$$x^2-ax+bx-ab;$$
$$p^2+5p-36;$$
$$n^2+30n+225;$$
$$(a+b)^2-c^2.$$

8. Simplify

$$\frac{a}{a-b}-\frac{b}{a+b}+\frac{2ab}{a^2-b^2}$$

$$\frac{1}{n+1}-\frac{1}{(n+1)(n+2)}+\frac{1}{(n+1)(n+2)(n+3)}.$$

9. Form the square of

$$x^3-x^2+x-1.$$

Solve

$$\frac{2x+15}{3}-\frac{x-6}{2}=3x-77.$$

10. A man's age sixteen years hence will be double that of his son, and six years ago it was half that of his father, who was born in 1812. Find the ages of the three parties.

III. ELEMENTS OF MECHANICS.

Wednesday, 5th October 1881.—2 *to* 4 *o'clock.*

1. Define Velocity and Acceleration. What are the British and the Metrical units in terms of which they are commonly measured?

2. What is meant by the Relativity of motion?

A train A runs at the rate of 45 miles an hour, while another train B runs in the opposite direction at the rate of 35 miles an hour. With what velocity will the train B appear to pass, as viewed by a passenger in train A?

3. A man whose weight is 11 stones falls freely from a height of 64 feet; calculate (neglecting the resistance of the air) the velocity, momentum, and kinetic energy acquired on reaching the ground.

4. While a train is moving with a velocity of 20 miles an hour alongside a station platform, the guard throws out a parcel with a horizontal velocity of 16·9 feet per second in a direction at right angles to the motion of the train. In what direction will the parcel move along the platform, and what will be its velocity at the beginning?

5. The wire-rope working a railway signal passes over and has its end attached to the rim of a fixed grooved pulley; the pulley is 1 foot in diameter and is turned by a lever 3 feet in length. Find the tension transmitted along the rope when a man pulls with a force of 74 lbs. at right angles to the lever and at its extremity.

6. Enunciate the theorem known as the *Polygon of Forces*. Show that if three forces acting at a point are in equilibrium, the difference of any two of them is less than the third.

7. How would you proceed to determine the specific gravity of Olive Oil?

8. State the hydrostatic laws which are satisfied by a heavy liquid.

What is the pressure at a depth of 3 miles under the surface of the ocean? (Weight of 1 cubic foot of sea-water = 64·11 lbs.

9. Compare the functions of the common balance and of the spring balance.

An article placed in one pan of a balance weighs 425 grains, in the other 406 grains. What is its correct weight?

10. Describe the hydraulic press, and state the principles involved in its action.

Wednesday, 15th March 1882.—2 *to* 4 *o'clock.*

1. A local train makes its run of 13 miles and back once in every two hours, stopping half a minute at each of fourteen intermediate stations, and ten minutes at either terminus. What is its average velocity when in motion?

2. A boat is rowed in the direction of right across a river with a velocity of 8 miles an hour. The river has a velocity of 2 miles an

hour, and a breadth of 800 feet. Find how far the boat will be carried down by the time it reaches the opposite bank.

3. Explain what is meant by *Acceleration.*

A boy throws a stone vertically into the air with a velocity of 80 feet per second; how much time has he to escape from it returning?

3. Three men are to carry a beam which is of uniform size and density, and has a length of 12 feet. If one of the three lifts at one end, and the other two lift by means of a lever, where ought the lever to be applied in order that each man may bear one-third of the weight?

5. An Arctic explorer uses a spring balance which was graduated at the equator; what correction ought he to apply to his readings? (The value of g at the equator is 32·09, and at either pole 32·25.)

6. Show that a coach when laden with passengers on the outside is more liable to be upset than when it is laden in the inside.

7. A steelyard takes a horizontal position when no body is attached to it, and the hook is at a distance of 6 inches from the point of suspension. To balance a certain body a 14 lb. weight must be placed at 2·5 feet from the point of suspension; what is the weight of the body?

8. Show that the force acting up an inclined plane required to keep a body in equilibrium on the plane is to the weight of the body as the height of the plane is to its length.

9. Compare the laws of pressure in the case of a fluid acted on by gravity with those which hold when the fluid is not acted on by gravity or any other external force.

10. State the principle of the liquid barometer. Show that the same principle has an application to the construction of the common pump.

IV. ENGLISH.

Wednesday, 5th October 1881.—9 *to* 11 *o'clock.*

1. Take down the following passage, attending carefully to spelling and punctuation. (*Passage to be dictated here.*)

2. Write a short essay, not exceeding two paragraphs in length, on any *one* of the following subjects:—

My Feelings at an Examination.
The Duke of Wellington.
A Fire at Sea.

3. Analyse the following passage, and parse the words in italics:—

"He judged that they were under condemnation, but *so* gentle *that* probably *that state* would be better than *no being at all*, and consequently *that* they or their parents would have no reason to wish that they had never been born."

4. (*a*) Explain, with examples, the various kinds of English pronouns.

(*b*) Explain and illustrate the following grammatical terms :— *liquids, abstract nouns, Romance words, complimentary nominative, gerund.*

5. Correct the following sentences of bad English :—

"Berkeley's principles of human nature are among the most profound of any in the language."

"For, though I do grant this faculty of retaining and laying up ideas brought into the mind to seem to exist in other animals as well as man, yet, taking into view the considerations already mentioned, there can be no doubt that the faculty of compounding ideas and deducing from them general principles are the particular peculiarity of man."

6. Give the meanings and derivations of any *five* of the following :— *martello, environs, marquess, pentameter, irony, pensive, suburb, charter, antidote, anxious, personification, senate, superstition, pluperfect, stereotype, individual, indict, ventriloquism, idiom, axiom, campaign, cæsura, antarctic, consonant, assassin.*

7. Tell briefly what you know of any *five* of the following :—*Plato, Gustavus Adolphus, Servia, The Revival of Learning, the Venerable Bede, The Arthurian Legends, Assaye, King Canute, Agincourt, The Peninsular War, Siberia, Salic Law, Ben Jonson, George Canning, Jack Cade, The Pilgrim Fathers, Cape Wrath, Dean Swift, Rhode Island, The Celtic Languages, The Lake School, The Heptarchy, Armenia, Utah, Drogheda, Brutus, Tunis, Archbishop Leighton, Faraday, Junius.*

Wednesday, 15th March 1882.—9 *to* 11 *o'clock.*

1. Take down the following passage, attending carefully to spelling and punctuation. (*Passage to be dictated here.*)

2. Write a short essay, not exceeding two paragraphs in length, on either of the following subjects :—

The House of Commons.

Dreams.

3. Analyse the following sentence, and parse the words in italics :—

"*There* are laughable peculiarities in some persons, of which the possessor *himself* is unconscious, *or* which if he does *at all* perceive them, he studiously endeavours to conceal, *as being* calculated to injure him in the opinion of *others*."

(*a*) Give the principal parts of the following verbs :—*shed, clothe, gild, sow, lay, lose, sling, slide.*

(*b*) Mention the chief metres used in English versification, giving an example of each.

(*c*) Give, in a tabular form, a classification of the English alphabet, placing each letter into its proper place in the scheme.

5. Correct the following sentences of bad English :—

(*a*) "Truth is often eliminated by controversy ; for either of two combatants, while seeing differently to his neighbour, are likely so far in the right."

(*b*) "Supposing the method and order of the translation is more perfect than what is commonly to be met, yet nevertheless the reader from whom the life of the ancients is foreign will be unable to comprehend parts, and will be prevented having a clear idea of the whole."

6. Give the meanings and derivations of any six of the following:—*solvent, ethnology, solecism, train, peccadillo, rate, constable, vellum, histrionic, bailiff, soil, toxicology, annex, horoscope, league, treasure, hotel, retrograde, firmament, urbane, gauntlet, quarry, moiety, jovial.*

7. Tell briefly what you know of any six of the following:—*Hector, Posen, Metaurus, Nova Zembla, Amazon, Rasselas, Justinian, William the Silent, Borneo, Assaye, Copernicus, Cloyne, Valparaiso, Euphuism, Long Parliament, Haiti, Salamis, Mirabeau, Battle of Leipzig, Hudibras, Balance of Power, Dante, Sir Philip Sidney, Congress of Vienna, Dalton, George Fox, Battle of Cannæ, Leonidas, Marius, Iona.*

V. NATURAL PHILOSOPHY.

Wednesday, 5th October 1881.—11.30 *to* 1.30 *o'clock.*

1. Enunciate the proposition known as the Parallelogram of Forces. What is the most general form of the proposition?

2. Define the dynamical idea of Work.

How much work is done by means of a crane in raising from the ground the material required to build a stone wall 100 feet long, 36 feet high, and 2 feet thick, the density of the stone being 153 pounds per cubic foot; height of a course = 1 foot?

3. Compare the properties of Sound, Light, and Radiant Heat. What is the physical basis of the similarity, and of the dissimilarity?

4. If a musical note is traversing the air in the presence of an instrument capable of sounding the same note, this instrument seems to take up the note and give it out of its own accord. Explain this phenomenon on the principle of the Conservation of Energy.

5. Describe an experiment which proves that Water has a point of maximum density.

Give a physical reason why a skating-pond should be made shallow.

6. Define Specific Heat and Latent Heat.

Mention economic advantages and disadvantages due to the great Specific and Latent Heats of Water-substance.

7. A luminous point moves along the axis of a concave spherical mirror from an infinite distance up to the mirror; describe the consequent change of the image.

8. Describe a method by which the illuminating power of a new light, such as the incandescent electric light, may be compared with the illuminating power of a candle.

9. State completely the fundamental fact of frictional electricity.

Cat's skin rubbed with flannel becomes positively electrified; glass

rubbed with flannel becomes negatively electrified; what conclusion may be drawn?

10. Describe the two primary modes in which a number of voltaic cells can be joined so as to form a battery.

Given four Bunsen cells for the purpose of rendering a platinum wire incandescent; how would you arrange them?

Wednesday, 15*th March* 1882.—11.30 *to* 1.30 *o'clock.*

1. How is the *gramme* defined? What principle is introduced in the practical application of the definition?

2. Distinguish between Work and Horse-power.

Calculate the amount of work done (independently of that lost through friction) in drawing a car of two tons weight, laden with 30 passengers averaging 10 stones each in weight, up a slope, the ends of which differ in level by 50 feet.

3. Explain and illustrate with examples the principle—*What is gained in power is lost in space.*

What is the gain in power in the case of a screw-jack which is moved by a lever 2 feet in length, and the screw of which has a distance of half an inch between its threads?

4. What advances in physical science are associated respectively with the names of Galileo, Galvani, Gilbert, Graham?

5. Does the velocity of sound vary with the density of the air? State the ground for your answer.

6. State the laws of the Refraction of Light.

What danger arises from the presence of a spherical protuberance in a window pane?

7. Define Temperature, and describe shortly the common method of measuring it.

8. A lightning-rod made of copper measures 50 feet in length when at a temperature of 0° C. Find its length in summer when heated to a temperature of 27° C. (Coefficient of linear expansion of copper is ·000017 for a degree centigrade.)

9. Describe Ruhmkorff's Coil, pointing out specially the electric principles involved.

10. Explain what is meant by electric conductors and electric insulators.

Arrange the following substances in the order of their conducting power for electricity:—

Water, Charcoal, Glass, Copper, Sulphuric Acid, Air.

VI. HIGHER MATHEMATICS.

Tuesday, 4*th October* 1881.—2 *to* 4 *o'clock.*

(*Not more than ten to be answered.*)

1. To inscribe a circle in a given triangle.

If a circle be inscribed in any triangle which stands upon the chord

of a segment of a circle, and has its vertex in the circumference of the segment, prove that the locus of the centre of the inscribed circle is a segment of a circle.

2. If a vertical angle of a triangle be bisected by a straight line which also cuts the base, the segments of the base shall have the same ratio which the other sides of the triangle have to one another; and if the segments of the base have the same ratio which the other sides of the triangle have to one another, the straight line drawn from the vertex to the point of section shall bisect the vertical angle.

Enunciate the complementary theorem, and draw the corresponding construction.

3. To describe a circle with given radius which shall pass through a given point and touch a given straight line.

4. If two straight lines are cut by three parallel planes, they will be cut proportionally.

5. If, in a parabola, QV is the ordinate to the diameter PV; then $QV^2 = 4FP \cdot PV$.

6. In a central conic the locus at the foot of the perpendicular from the focus on the tangent is the circle described on the transverse axis as diameter.

7. Simplify

$$\frac{a}{(b-a)(c-a)} + \frac{b}{(c-b)(a-b)} + \frac{c}{(a-c)(b-c)};$$

and

$$\frac{1}{a-b\sqrt{-1}} - \frac{1}{a+b\sqrt{-1}} + \frac{1}{\sqrt{-1}(a+b)} - \frac{1}{\sqrt{-1}(a-b)}.$$

8. Prove that

$$(a^2+b^2+c^2)(x^2+y^2+z^2) = (ax+by+cz)^2+(bz-cy)^2 + (cx-az)^2+(ay-bx)^2.$$

9. Solve for t and x

$$\left.\begin{aligned} t+x &= p \\ \frac{t^2}{2}+xt &= q \end{aligned}\right\}$$

10. Prove that

$$(x^2-1)^3+2(1-x)^3-3(x^2-1)(1-x)^2$$

is a complete square.

11. Express in degrees and circular measure the angle made by the hands of a watch at 7·45.

Given $\sec A = \frac{5}{4}$, find the values of the other trigonometrical ratios.

12. Prove by geometrical construction that

$$\sin(A+B) = \sin A \cos B + \cos A \sin B.$$

Deduce that

$$\cos(A+B)=\cos A\cos B-\sin A\sin B;$$

$$\text{and } \sin A=2\sin\frac{A}{2}\cos\frac{A}{2}.$$

13. The direction in which a lighthouse is seen from a given point A on the shore makes an angle of 72° with the line joining it with another point B on the shore. The length of the line AB is $1\frac{1}{4}$ mile, and the angle between AB and the direction in which the lighthouse is seen at B is also 72°; calculate the distance of the lighthouse from A.

$$\left(\cos 72^\circ=\frac{\sqrt{5}-1}{4}\right).$$

Tuesday, 14th March 1882.—2 *to* 4 *o'clock.*

(*Not more than Ten to be answered.*)

1. If two straight lines cut one another within a circle, the rectangle contained by the segments of one of them shall be equal to the rectangle contained by the segments of the other.

2. To describe an isosceles triangle having each of the angles at the base double of the third angle.

3. Similar triangles are to one another in the duplicate ratio of their homologous sides.

4. If two straight lines be parallel, and one of them be at right angles to a plane, the other also shall be at right angles to the same plane.

5. Find the number of diagonals that may be drawn in a polygon of n sides.

If the number of possible diagonals in a given case is 20, how many sides has the polygon?

6. If NT is the subtangent to a parabola, and NG the subnormal, to prove that NT = 2AN and NG = 2AF.

7. The tangent in a central conic makes equal angles with the focal distances.

8. Simplify

$$\frac{\frac{a}{b(a+b)}-\frac{b}{a(a+b)}}{\frac{x^6-2x^3+1}{x^2-2x+1}};$$

$$\frac{\frac{1}{x-a}+\frac{1}{x+a}}{\frac{1}{x-a}-\frac{1}{x+a}}$$

9. Find the greatest common measure of

$$7x^2 - 23x + 6 \text{ and } 5x^3 - 18x^2 + 11x - 6.$$

10. Prove that if $a + b + c = 0$,

then $a^4 + b^4 + c^4 = 2(b^2c^2 + c^2a^2 + a^2b^2)$.

11. Solve the simultaneous equations

$$x - y = 2$$
$$x^3 - y^3 = 8.$$

12. Prove that for a triangle

$$a^2 + b^2 + c^2 = 2bc \cos A + 2ca \cos B + 2ab \cos C;$$

and also

$$a^2 \sin A + ab \sin B + ac \sin C = (a^2 + b^2 + c^2) \sin A.$$

13. Prove that

$$\frac{\cos(\alpha + \beta + \gamma)}{\cos\alpha \cos\beta \cos\gamma} = 1 - \tan\beta \tan\gamma - \tan\gamma \tan\alpha - \tan\alpha \tan\beta.$$

14. Find A and B from the following equations:

$$\frac{\sin A}{\sin B} = \sqrt{2}. \qquad \frac{\cos A}{\cos B} = \frac{\sqrt{2}}{\sqrt{3}}$$

VII. LATIN.

Thursday, 6th October 1881.—9 *to* 11 *o'clock.*

1. *Translate* Cic. *de Amic.*, ii., *from* "Sunt ista Læli," *to* "inferiores putes."

Explain the allusions in this passage.

2. *Translate* Cic. *de Amic.*, ix., *from* "Quod si tanta," *to* "maxime excellit."

3. *Translate* Cic. *de Amic.*, xii., *from* "Quis clarior in," *to* "qualis hodie sit."

4. *Translate* Cic. *de Amic.*, xxv., *from* "Cum autem omnium," *to* "accessit auctoritas."

5. *Translate* Caes. *de Bell. Gall.*, v. 8, *from* "Ad solis occasum," *to* "est visus."

6. Who was Cicero? Who are the chief speakers in the dialogue? Tell what you know about them; as to each give one or two dates.

7. Parse fully *luseris*, *assentetur*, *colendis*, *cicuribus*, *dissuendæ*, *ferream*, *dirimi*, *profecto*, giving principal parts of verbs, and nominative and genitive singular of nouns and adjectives.

8. *Translate into Latin*—

Cæsar not knowing (*nescio*) where he was, ordered (*impero*) the guides (*dux*) to proceed three miles into the woods (*silva*) and find out the nature of the people and the country. They returned (*regredior*) three hours after and reported (*nuntio*) that they had seen large bodies

(*turma*) of the enemy's cavalry, and they feared the army would soon be attacked (to make an attack = *impetum facere in*). On hearing this, Cæsar crossed (*transeo*) the river, and burnt (*incendo*) the bridge.

Thursday, 16th March 1882.—9 *to* 11 *o'clock.*

1. Translate into Latin—

On the fourth day after the murder of the general (*imperator*) and his son-in-law (*gener*), the younger (*juvenis*) of the two lieutenants (*legatus*) left (*decedo*) in haste to carry (*referre*) the news to Rome. He took with him two thousand foot soldiers and five hundred cavalry, and said that he hoped to be with his friends in Rome eighteen days after. In this hope he was deceived (*fallo*).

2. Translate into English—

(*a*) Cic. *de Amicitia*, 15, 52, *from* "Non ergo," *to* "referre posset."

(*b*) Cic. *de Amic.*, 23, 87, *from* "Quin etiam, *to* "omnium solitudo?"

(*c*) Cic. *de Amic.*, 6, 22, *from* "Principio, cui potest," *to* "molesta est."

(*d*) Caes. *Bell. Gall.*, vi. 11, *from* "In Gallia non solum," *to* "habet auctoritatem."

3. Parse fully the following words :—*cogatis, jusjurandum, repudientur, potuere, equisset, periclitatis, osurus.*

4. Translate the following phrases into idiomatic English—

Sunt ista, Læli. Agamus igitur pingui Minerva. Neque id ad vivum reseco. In quibus caput agitur. Est igitur prudentis.

VIII. LOGIC.

Thursday, 6th October 1881.—11.30 *to* 1.30 *o'clock.*

(*The Candidate may take either Paper A or Paper B, but must confine himself to the Paper he has chosen.*)

A.

1. Define and divide Logic. Explain the terms of your definition.

2. How are propositions distinguished from sentences? Mention the various kinds of both.

3. Convert—

(*a*) Men are not what they used to be.

(*b*) All is not gold that glitters.

(*c*) England and Scotland now form one nation.

(*d*) Few men know themselves.

4. Express the following arguments in syllogistic form, and if they are fallacious, name the fallacy :—

(*a*) A singular proposition is a universal one, for it applies to the whole of its subject.

(*b*) Every candid man acknowledges merit in a rival; every learned man does not do so; therefore every learned man is not candid.

(*c*) Every law is either useless or it occasions hurt to some person; now a law that is useless ought to be abolished; and so ought every law that occasions hurt; therefore every law ought to be abolished.

5. Explain and exemplify the method of Concomitant Variations.

6. Enunciate the rules of Syllogism, and give an example of the violation of each rule.

7. Classify Fallacies.

B.

1. In what does Berkeley's explanation of our knowledge of distant objects differ from the explanation which he rejects?

2. What is the function of suggestion in our sensible experience?

3. What is the proper object of Geometry?

4. Who take part in the dialogue named *Alciphron*, and what forms of opinion are they supposed to represent?

5. Explain what Berkeley means by the Divine Language of Vision.

Thursday, 16th March 1882.—11.30 *to* 1.30 *o'clock.*

(*The Candidate may take either Paper A or Paper B, but he must confine himself to the Paper he has chosen.*)

A.

1. "Europeans are men because they reason." State this argument in syllogistic form, and then analyse it so as to show the three operations of mind involved in reaching the conclusion.

2. Explain and exemplify each of the following:—*subcontrary, modal proposition, specialization, symbolical knowledge, immediate inference.*

3. Convert—

(*a*) Many a little makes a mickle.

(*b*) He is always saying to me—"How do you do?"

(*c*) Rome was.

4. Express the following arguments in syllogistic form, and if they are fallacious point out the fallacy—

(*a*) Few towns in the United Kingdom have more than 300,000 inhabitants; and as all such towns ought to be represented by three members in Parliament, it is evident that few towns ought to have three representatives.

(*b*) Opium produces sleep, for it possesses a soporific virtue.

(*c*) "You are inconsistent with yourself, for you told me yesterday that there was a presumption of this man's guilt, and now when I say that I may presume his guilt, you contradict me."

5. Illustrate the following fallacies:—*Petitio Principii*, *Fallacy of Division*, *Ignoratio Elenchi*, *Fallacy of many Questions*, *Fallacy of Undistributed Middle*.

6. State and exemplify the distinction between Induction and Analogy.

7. Give a familiar instance of each of the Inductive Methods.

B.

1. Explain and illustrate what is meant by "arbitrary connexion" between visual signs and their meanings, and how, on this ground, visual perception of things in ambient space may be regarded as interpretation of a prophetic language.

2. On what grounds did Berkeley reject the old explanation of perception of near distance by sight?

3. In what consists the fixed nature of inches, feet, and other standards of length?

4. Give an account of the sense of Touch, the qualities of matter which it makes known to us, and its relations to Sight.

IX. MORAL PHILOSOPHY.

Thursday, 6th October 1881.—2 *to* 4 *o'clock.*

1. What is meant by "action" in morals? Distinguish between "action" in Ethics, and in Physiology.

2. By what arguments has introspection been declared impossible, and how have these arguments been met?

3. On what grounds has the existence of first principles in morals been defended?

4. Explain the meaning of the term "Necessary Truth."

5. In what does the authority of Conscience consist?

6. Show how the Utilitarian theory finds it difficult to give an adequate explanation of duty.

7. What place does Happiness occupy in Butler's system?

8. State shortly Butler's theory of Conscience, explaining specially the use he makes of "Reflection."

Thursday, 16th March 1882.—2 *to* 4 *o'clock.*

1. Compare Butler's account of Conscience with that given in the *Handbook*.

2. What place does self-love occupy in Butler's ethical system;

3. On what grounds has it been maintained that the science of ethics ought to begin with a study of the facts of consciousness, and how has that position been assailed?

4. What are Moral Rights?

5. With what variation of detail have Hobbes, Paley, Bentham, and J. S. Mill respectively adopted the Utilitarian theory?

6. Explain what seems to you to be the most satisfactory account of duty given by Utilitarians.

7. Give the marks by which a first principle may be recognised, and the special marks of a first principle in morals.

X. GREEK.

Friday, 7th October 1881.—9 *to* 11 *o'clock.*

1. Translate :—

Plato, *Euthyphro* ii., *from* "ΣΩ. *Ἄτοπα, ὦ θαυμάσιε*" *to* "*ἀλλ' ὁμόσε ἰέναι.*"

Explain or give the rule for the cases of *τούτου, καινοτομουντός σου, ἐμοῦ, ὧν, αὐτῶν* respectively.

2. Translate :—

Plato, *Euthyphro* iv., *from* "*Γελοῖον, ὦ Σώκρατες*" *to* "*ὅπερ οὖν καὶ ἔπαθεν.*"

Classify the uses of *ει* and *ἐάν* in this passage, and explain or state the rules for each.

3. Translate :—

Plato, *Euthyphro* vii., *from* "*Οὐκ ἂν θαυμάζοιμι*" *to* "*μὴ τοιοῦτον, μὴ φῶ.*"

4. Translate :—

Κινδυνεύω ἄρα, ὦ ἑταῖρε, ἐκείνου τοῦ ἀνδρὸς δεινότερος γεγονέναι τὴν τέχνην τοσούτῳ, ὅσῳ ὁ μὲν τὰ αὐτοῦ μόνον ἐποίει οὐ μένοντα· ἐγὼ δὲ, πρὸς τοῖς ἐμαυτοῦ, ὡς ἔοικε, καὶ τὰ ἀλλότρια. καὶ δῆτα τοῦτό μοι τῆς τέχνης ἐστὶ κομψότατον, ὅτι ἄκων εἰμὶ σοφός. ἐβουλόμην γὰρ ἄν μοι τοὺς λόγους μένειν, καὶ ἀκινήτους ἱδρύσθαι, μᾶλλον ἢ πρὸς τῇ Δαιδάλου σοφίᾳ τὰ Ταντάλου χρήματα γενέσθαι. καὶ τούτων μὲν ἄδην. Ἐπειδὴ δέ μοι δοκεῖς σὺ τρυφᾷν, αὐτός σοι ξυμπροθυμήσομαι δεῖξαι ὅπως ἄν με διδάξῃς περὶ τοῦ ὁσίου, καὶ μὴ προαποκάμῃς. ἴδε γὰρ εἰ οὐκ ἀναγκαῖόν σοι δοκεῖ δίκαιον εἶναι πᾶν τό ὅσιον.

5. Translate into Greek :—

Cyrus having thus gone away (*ἀπέρχομαι*) is said (*λέγω*) to have been (*γίγνομαι*) a year (*ἐνιαυτός*) still among (*ἐν*) the children (*παῖς*), and at first (*πρῶτος*) the boys mocked (*σκωπτω*) him, but afterwards (*ὕστερον*) he became very dear (*φίλος*), and was chosen (*αἱρέω*) their king.

6. Parse fully the following words :—*πάσχον, ἐντιθεὶς, ὑποθέσεις, ἐπίστηται, ᾐσχύνθης, δεδεμένου, διηγήσει, ἐπεξιών.*

7. Give the argument of this dialogue, and show how it illustrates the character and teaching of Socrates.

8. Decline fully *οὗτος, ἐγω, μήτηρ, ὄρνις.*

Friday, 17th March 1882.—9 *to* 11 *o'clock.*

1. Translate into Greek :—

In the market-place (*ἀγορά*) Brasidas and his soldiers (*στρατιώτης*), three thousand five hundred and twenty in number (*ἀριθμός*), stopped (*ἵστημι*), and the general (*στρατηγος*) thus spoke (*φημί*), while the

women and children loudly (adverb from μεγάς) wept (κλαίω; use the genitive absolute).

2. Translate into English—

(*a.*) Plat. *Euthy.* 374,12, *from* "ΕΥΘ. Οὐχ ἔπομαι," *to* "Δέδοικε μὲν οὖν."

(*b.*) Plat. *Euthy.* 382,15, *from* "ΣΩ. Θαυμάσει οὖν," *to* "ὀρθῶς τιθέμεθα."

(*c.*) "Plat. *Euthy.* 354,3, *from* "Ἴσως γὰρ σὺ," *to* "τοῖς μάντεσιν."

3. Parse fully—ἡγεῖ, διεκελευόμην, φῶ, δίδαξον, ἐπεξιών, μισῶσιν, μεμαθηκότας, ἀπετράπου.

4. Decline—αὐτός, βελτίων, εἰδώς, μητήρ, υἱος.

XI. FRENCH.

Friday, 7th October 1881.—11.30 *to* 1.30 *o'clock.*

I. Translate into English Ponsard, *Le Lion Amoureux*, Act iii., Scene 8, *from* "Vous venez" *to* "d'un régicide!"

II. Translate into French :—

My Dear Friend:—It was very kind of you to ask me to stay with you in the country. How delightful it would have been to ramble with you through the fields and woods! But alas! the duties of school do not allow me to leave town for another six weeks. Afterwards my parents propose to take me to France, in order to continue there my studies. I shall write to you as soon as I get there; and I hope you will often let me hear from you. Wishing you pleasant holidays, I remain, Ever yours, WILLIAM.

III. (1) Give the plural and meaning of *chacal, corail, éventail, œil, verrou, genou, chou-fleur, travail, croix, vœu.*

(2) Give the feminine and meaning of *époux, sot, lion, duc, bref, doux, vieux, frais, gras, fou, franc, sec, public.*

(3) Give the third person singular and plural of the present, imperfect, past definite,* and future indicative of *dire, savoir, jeter, faire, aller, commencer, vouloir, manger, voir, comprendre.*

(4) Write out the negative-interrogative form of the past indefinite* of *se réjouir.*

(5) Give a brief account of the French classical drama.

Friday, 17th March 1882.—11.30 *to* 1.30 *o'clock.*

I. Translate into English—Ponsard, *Le Lion Amoureux*, Act v., Scene 8, *from* "HOCHE, *au Comte.* Monsieur, vous êtes libre," *to* "à ma façon."

II. Translate into French :—

While Bonaparte was thus endowed (*douer*) with many excellent

* Present *je parle*; imperfect *je parlais*; past definite *je parlai*; past indefinite *j'ai parlé.*

qualities, he at the same time possessed an ambition which knew no bounds (*borne*). In a short time he became commander-in-chief of the republican armies, at the head of which he gained victories over nearly every nation of Europe. He even led them to Egypt, where his troops obtained immortal fame. Soon after he got himself appointed consul, in order to imitate the magistrates of ancient Rome ; and when he saw that the people, intoxicated with his glory, had become accustomed to obey him, he conceived the idea of restoring (*relever*) the throne of Charlemagne, and placing on his own head the imperial crown which that mighty monarch had worn.

III. (1) Give the plural and meaning of *tableau, nez, œil, canal, éventail, ciel, jeu, clou, détail, grand-père, grand'mère, arc-en-ciel.*

(2) Give a few examples showing the use of the partitive article in French.

(3) Give the rule regarding the cardinal numbers that take the sign of the plural, and state what compound cardinal numbers take *et.*

(4) Give the third person singular and first person plural of the present, imperfect and past definite* indicative and future of *manger, boire, prendre, croire, dire, annoncer, achever, pouvoir, aller, battre.*

(5) Write out the negative-interrogative form of the pluperfect of *se flatter.*

(6) Give a brief account of any two of the following writers :— *Voltaire, Molière, Béranger, Rabelais, Racine.*

XII. GERMAN.

Friday, 7th October 1881.—2 *to* 4 *o'clock.*

I. Translate into English Gutzkow, *Zopf und Schwert*, Act ii., Scene 2, *from* "Erbprinz—Wie?" *to* "ich hier."

II. Translate into German:—

These were Hawermann's thoughts as he went to join his master in his study. Mrs von Rambow was in the room ready dressed for her walk over the farm. She *went forward to meet* (*entgegen-gehen*) him as he came in, and said :—"We must wait a little, Mr Hawermann, Alick wants to speak to the people before we go."—"That won't take *dauern*) long," said the young squire, who was turning over some papers. There was a knock at the door—"Come in!"—and Fred entered with a letter in his hand.

III. (1) Add the definite article to, and give meaning and plural of *Frau, Weib, Kind, Herz, Haus, Geist, See, Pferd, Tugend, Blatt, Ziel, That, Gestalt.*

* Present *je parle ;* imperfect *je parlais;* past definite *je parlai.*

(2) Decline throughout, singular and plural, *grosze Freude* and *der hohe Baum.*

(3) Give the third person singular, and plural present, preterite and perfect, of *sitzen, fliehen, schreiben, lesen, sprechen, thun, finden, liegen, wissen, anfangen, wie' derholen,* and *wiederho' len.*

(4) Write out the future indicative passive of *sehen.*

(5) Give a brief account of any two of the following writers :— *Goethe, Schiller, Klopstock, J. P. F. Richter, Gutzkow.*

Friday, 17th March 1882.—2 *to* 4 *o'clock.*

1. Translate into English Gutzkow, *Zopf und Schwert,* Act iv., Scene 1, 3, *from* "Hotham. In allen Zeitungen," *to* "Können Sie rauchen?"

2. Translate into German :—

Soon after, the famous Duke of Wellington, who had served his country so long and so well, died. By the victories he had won he had procured peace for Europe, which lasted more than forty years. The English had cause to lament (*beklagen*) his loss, not many years after, when they were involved (*verwickeln*) in a terrible war with Russia. The Russians, whose country, as you know, is larger than that of any other nation in Europe, tried to get possession of (*in Besitz nehmen*) Turkey, and of the rich corn countries on the banks of the river Danube. Several of the other nations, however, thought it would not be safe for the rest of (*das übrige,* adj.) Europe that the Emperor of Russia should rule from the Baltic Sea to the Mediterranean (*mittelländische Meer*).

3. (1) Give nominative and genitive singular and nominative plural (with the definite article and meaning) of *Mann, Hund, Pferd, Baum, Blume, Löwe, Dorf, Stadt, Haus, Bett, Bruder, Schwester, Hand, Hoffnung, Auge.*

(2) Decline throughout, singular and plural, *starker Wind* and *der weite Weg.*

(3) Compare, and give meanings of *grosz, hoch, jung, gut, alt, voll, sanft, viel, froh, nahe.*

(4) Give the second person singular and plural present, preterite and perfect of *liegen, stehen, wissen, können, kennen, denken, thun, rufen, verstehen, aufnehmen, antreiben, übe'tzen.*

(5.) Give a brief account of any two of the following writers :— *Lessing, Wieland, Schiller, Uhland, Auerbach, Bürger.*

FIRST PROFESSIONAL EXAMINATION AND FIRST EXAMINATION FOR B.Sc.

I. NATURAL HISTORY.

Thursday, 13th October 1881.—2 *to* 4 *o'clock.*

Examiners—Dr M'Intosh and Prof. Sir Wyville Thomson.

1. Define the Polyzoa, and give a sketch of the development in any of the group.

2. Describe the structure of an abdominal somite in the Lobster.
3. Indicate the structural differences between a Spider and a Scorpion in regard to the nervous, respiratory, and circulatory systems.
4. State the chief differences between Reptiles and Birds.
5. Compare briefly the skull of a Right Whale with that of a Dolphin.

Monday, 3rd April 1882.—2 *to* 4 *o'clock.*

Examiners—Drs MACKINTOSH and RAMSAY TRAQUAIR.

1. What are the Monera? Describe a typical form.
2. Give briefly the general structure, life-history, and zoological position of the animal which causes "rot" in the sheep.
3. Describe the vascular system and the course of the circulation in the lobster.
4. What is meant by the term "noto-chord," and in what living forms is it said to be persistent?
5. Indicate methodically the bones forming the pectoral arch and fore-limb in a bird.

II. BOTANY.

Friday, 14th Octobcr 1881.—11 *to* 1 *o'clock.*

Examiners—Dr CLEGHORN and Professor DICKSON.

1. Describe the structure and mode of growth of the Bark of an ordinary Dicotyledon; and state how it differs from that of an ordinary Monocotyledon as regards (*a*) structure and (*b*) the subjacent part with which it is in immediate contact.
2. Distinguish by their *Androecium*—
   Compositæ from *Dipsacaceæ*.
   Labiatæ from *Boraginaceæ*.
   Caryophyllaceæ from *Malvaceæ*.
   Ericaceæ from *Solanaceæ*.
3. Describe generally the arrangements for and mode of fertilisation in Orchids; and state the supposed benefit to the plant therefrom.
4. What is the nature and function of the "Albumen" of the Seed? Distinguish between *Perisperm* and *Endosperm*. Name a natural order with albuminous and one with exalbuminous seeds.
5. Compare and contrast the fruits of the following plants:—
   Plum (*Prunus*) and Coco-nut (*Cocos*).
   Strawberry (*Fragaria*) and Raspberry (*Rubus*).
   Pea (*Pisum*) and Wallflower (*Cheiranthus*).

Tuesday, 4th April 1882.—11 *to* 1 *o'clock.*

1. What important distinction is to be noted between the germination of ordinary Dicotyledons, *e.g.*, Bean, Oak, &c., and such Monocotyledons as Gramineæ.
2. Describe the structure of Woody Prosenchyma and of "Soft Bast," and state the function of each.

3. Describe the structure and development of Pollen, and state how its physical characters may be related to the mode of its application to the stigma.

4. State generally the conditions necessary for the passage of matters in solution into the roots. State also what is necessary to make the stored-up starch available for the nutrition of the plant.

5. Describe the following :—

(*a*) The *corolla* and *andrœcium* of Malvaceæ and Primulaceæ.
(*b*) The *perianth* of Liliaceæ and Iridaceæ.
(*c*) The *pistil* of Labiatæ and Scrophulariaceæ.
(*d*) The *fruit* (including seed) of Violaceæ and Compositæ.

III. CHEMISTRY.

Examiners—Professors CRUM BROWN and DITTMAR.

Thursday, 13th October 1881.—11 *to* 1 *o'clock.*

I. Jets of the following gases are kindled in air :—(*a*) Hydrogen ; (*b*) Marsh-gas ; (*c*) Acetylene. Give in each case—

(1) The chemical equation representing complete combustion.
(2) The volume of atmospheric air required for the complete combustion of one volume of the gas.
(3) The volume of the products of combustion formed from one volume of the gas (the gas and the products being both measured at 0° Centigrade).

Arrange the three flames in the order—

(i.) Of luminosity.
(ii.) Of calorific power per unit volume of gas burned ; giving reasons.

(*Note.*—You may assume atmospheric air to contain exactly $\frac{1}{5}$ of its volume of oxygen.)

II. Explain the preparation of basic nitrate of bismuth from the metal.

III. What is the action of nitric acid on each of the following metals ?

(*a*) Gold ; (*b*) Silver ; (*c*) Mercury ; (*d*) Zinc ; (*e*) Iron.

IV. How is chloroform prepared—

(*a*) From chloral hydrate.
(*b*) From alcohol direct.

Give the physical and chemical properties of Chloroform.

Monday, 3d April 1882.—11 *to* 1 *o'clock.*

1. Explain the Preparation of Orthophosphoric acid from Phosphorus, and of Arsenic acid from white Arsenic. State what change occurs when each of these acids is heated to redness.

2. What is the action of Chlorine gas on each of the following elements :—Phosphorus, Arsenic, Antimony, Bismuth, Silver, Zinc ? State how the chlorides formed act (if at all) on water.

3. How are the following metals obtained (directly or indirectly) from the substances named :—

Sodium from Sodic Carbonate.
Magnesium from Magnesic Carbonate.
Lead from Galena.

4. How is Tartaric acid prepared from Tartar? Give the formulæ and general properties of the Potassic Tartrates ; and state what is left when these salts are heated to redness in the air.

5. Explain fully the action of Ammonia on Iodide of Methyl.

SECOND PROFESSIONAL EXAMINATION.

IV. ANATOMY.

Friday, 15th July 1881.—11 *to* 1 *o'clock.*

Examiners—Mr CHIENE and Professor TURNER.

1. Describe the 1st Rib—(*a*) its position ; (*b*) its form ; (*c*) its articulations ; (*d*) the attachment of muscles to it ; (*e*) its relations to vessels and nerves.

2. Give the *origin, course, insertion, action,* and *nerve-supply* of the muscles which move the *Index* finger.

3. Describe the *Membranous Cochlea ;* (*a*) its position ; (*b*) its form ; (*c*) its walls ; (*d*) the arrangement and structure of the Organ of Corti. With what does it communicate ?

4. Describe step by step the dissection necessary to expose the whole length of the *Inguinal Canal.* Give also the position, direction, and boundaries of this canal, and state what it contains both in a man and in a woman.

Thursday, 6th April 1882.—11 *to* 1 *o'clock.*

1. Describe the articulations and ligamentous connections of the right innominate bone with other bones.

2. Describe the position and boundaries of the third ventricle of the cerebrum. What are its communications ?

3. Describe the arrangement of the right p'eural membrane, and give its microscopic anatomy.

4. A circular cut having been made through the integument at the level of the apex of the styloid process of the radius, name in order the various structures that would have to be divided so as to expose the palmar and dorsal aspects of the carpal bones.

V. INSTITUTES OF MEDICINE.

Friday, 15th July 1881.—1.30 *to* 3.30 *o'clock.*

Examiners—Professor RUTHERFORD and Professor GAMGEE.

1. What is known regarding the functions of the several branches of the pneumogastric nerve? What effects follow (*a*) division of both

nerves at the middle of the neck; (*b*) stimulation of the distal ends of the divided nerves; (*c*) stimulation of their proximal ends?

2. Give an account of the coagulation of the blood, of the conditions which accelerate, and those which retard or prevent it, and of the principal theories relating to it.

3. Give an account of the structure of a Graafian follicle, of the manner in which its several parts are developed, and of the changes in the ovary which accompany and follow menstruation.

Thursday, 6th April 1882.—1.30 *to* 3.30 *o'clock.*

Examiners—Dr CATON and Professor RUTHERFORD.

1. (*a*) Draw a typical curve of a simple muscular contraction. (*b*) Explain its several events. (*c*) What is the latent period of contraction, and what occurs in that period? (*d*) How is it known that physiological tetanus is a compound contraction?

2. Give an account of the innervation of the Dilator and Sphincter Pupillæ muscles.

3. Describe the appearances presented by a vertical section of a Malpighian pyramid, and in so doing describe the structure of the urinary tubules.

4. Describe the changes which the carbohydrates of the food undergo before and after entering the blood. In so doing give an account of the glycogenic function of the liver.

VI. MATERIA MEDICA.

Saturday, 16th July 1881.—11 *to* 1 *o'clock.*

Examiners—Dr LAUDER BRUNTON and Professor FRASER.

1. How is *Chlorate of Potash* prepared? For what purposes is it used? In what ways and in what doses is it prescribed?

2. Enumerate the chief *Astringents*, mineral and vegetable. For what purposes are they employed? State the reasons which induce you to give the preference to one over another in different forms of disease.

3. What are the sources, botanical and geographical, of *Squill?* What is its physiological action? What are its therapeutical uses? What are its officinal liquid preparations? What are their doses?

4. Describe the action of *Digitalis* upon the heart, blood-vessels, and kidneys, and the indications for its use in diseases of the heart. Mention its officinal preparations and their doses.

5. Define an *Emulsion.* What substances may be used to emulsify oils? Give a prescription for half an ounce of Castor oil in the form of emulsion.

Examiners—Professor FRASER and Dr MURRELL.

Saturday, 8th April 1882.—11 *to* 1 *o'clock.*

1. How is Calomel prepared? What are its physical characters and chemical reactions? Give an account of its physiological action and therapeutical uses.

2. What is an Essence according to the Pharmacopœia? Give an officinal example, and state its composition, dose, and process of preparation.

3. Give an account of the physiological action and therapeutic uses of Bromide of Potassium.

4. Mention the botanical source, characters, and composition of Pale Catechu, and describe the process followed in preparing it.

5. Describe the composition and physical characters of Cod Liver Oil. Explain its special facility of absorption, and its special value as a fattening substance.

VII. GENERAL PATHOLOGY.

Saturday, 16th July 1881.—1.30 *to* 3.30 *o'clock.*

Examiners— Dr BLAIR CUNYNGHAME and Professor GREENFIELD.

1. Describe the principal changes found in the Granular Contracted, or Cirrhotic Kidney, as seen with the naked eye and the microscope.

2. Describe the appearances and structure of Hydatid Cysts of the Liver. Mention briefly what changes such Cysts may undergo.

3. Describe the naked eye and microscopical appearances of the different stages of Lobar Pneumonia.

Examiners—Dr SIDNEY COUPLAND and Professor GREENFIELD.

Saturday, 8th April 1882.—1.30 *to* 3.30 *o'clock.*

1. Describe the naked eye and microscopical characters of the waxy or lardaceous kidney, and discuss the nature of the changes which occur.

2. Describe the conditions which favour the coagulation of blood during life within the blood-vessels; and give a succinct account of the results of such coagulation as regards (1) the vessel itself and (2) the clot.

3. Enumerate the various forms of animal parasites liable to infest the human alimentary canal, and state what part of the canal they occupy. Describe the life history of the common form of tapeworm.

FINAL PROFESSIONAL EXAMINATION.

VIII. SURGERY.

Friday, 3d June 1881.—11 *to* 1 *o'clock.*

Examiners—Professor SPENCE and JAMES DUNSMURE, M.D.

I. Describe the anatomy of the Rectum and anal or posterior division of the Perineum, including the ischio-rectal fossæ, in reference to the surgery of the region.

II. *Excision of Knee-Joint.*

(*a*) What are the forms of disease of the knee-joint most suitable for excision.

(*b*) Describe the operation step by step, noticing the special points to be attended to.

(*c*) The after-treatment, including application of apparatus, dressings, and general treatment.

III. *Epiphora or Stillicidium Lachrymarum.*

(*a*) What are the different conditions which may give rise to "Stillicidium Lachrymarum"?

(*b*) State the treatment to be adopted in each case respectively, according to the condition of the parts affected.

IX. MIDWIFERY.

Friday, 3d June 1881.—1.30 *to* 3.30 *o'clock.*

Examiners—Professor SIMPSON and Dr KEILLER.

1. Describe the Structure and Functions of the Placenta.

2. Give indications for the Induction of Premature Labour; describe the best Methods of carrying out the operation, and the Cautions to be observed in the process.

3. Describe three typical varieties of Vagina Specula; explain the modes of their Application, and state Contra-indications to their use.

X. PRACTICE OF PHYSIC.

Saturday, 4th June 1881.—11 *to* 1 *o'clock.*

Examiners—Professor GRAINGER STEWART and Dr ALFRED B. DUFFIN.

1. What do you understand by the term "Hyperpyrexia"? In what diseases is it most apt to occur? What remedial measures would you adopt if you met with the condition?

2. What are the leading symptoms observed in a case of Labio-glosso-laryngeal (Bulbar) Paralysis? State what you know of the morbid Anatomy, and modes of death in such cases.

3. What are the characteristics of Paralysis following Diphtheria? In what ways may the disease prove fatal? What treatment would you adopt to avert death, and to assist recovery?

4. Describe the clinical features, enumerate the chief causes of, and indicate the treatment suitable for a case of acute general Peritonitis.

XI. MEDICAL JURISPRUDENCE.

Saturday, 4th June 1881.—1.30 *to* 3.30 *o'clock.*

Examiners—Professor MACLAGAN and Dr BRAIDWOOD.

1. *Death from Carbonic Acid Gas.*

1. State the circumstances under which this may occur accidentally.

2. Under what circumstances may it be shown to be suicidal?

3. Describe the symptoms produced—
   (*a*) By pure carbonic acid.
   (*b*) By carbonic acid when admixed with other gases.
   (*c*) The treatment.
   (*d*) How may an apartment or other place where this gas exists be cleared of it?

II. *Fatal Wounds.*
1. What is the general cause of death in wounds?
   (*a*) Incised.
   (*b*) Punctured.
2. How is death generally produced in lacerated wounds of the extremities?
3. How may death be produced in contusions of the trunk of the body?
4. What are the characters on the dead body of wounds
   (*a*) inflicted during life.
   (*b*) inflicted after death.

XII.—CLINICAL MEDICINE.

Examinations written, oral and practical, on cases in wards of the Royal Infirmary.

XIII.—CLINICAL SURGERY.

Examination on the Symptoms, Diagnosis, and Treatment of Surgical Cases in the wards of the Royal Infirmary.

V.—SCIENCE DEGREES.

FIRST EXAMINATION FOR B.Sc.

IN PHYSICAL AND NATURAL SCIENCES.

[NOTE. *For Questions in Mathematics and Natural Philosophy, see under Examination in Arts, and for Questions in Chemistry, Botany, and Zoology, see under First Professional Examination for Degrees in Medicine.*]

Department of Public Health.

PHYSICS.

Monday, 3rd April 1882.—2 *to* 4 *o'clock.*

Examiners—Professors JENKIN and TAIT.

1. What is the direction and magnitude of the pressure against a flat circular valve inclined to the horizon at an angle of 45°, and employed

to retain fresh water in a reservoir; the centre of the valve is 16 feet below the surface of the water, and the diameter of the opening which the valve closes is 1 foot.

2. The vapour in the lower mile of the atmosphere is condensed, and ¼ inch of rain falls. Calculate approximately the effect on the temperature of the air.

3. State the main facts as to the passage of gases through solids, especially in their bearing on the materials of which stoves should be constructed.

4. What is meant by the terms *Cyclone* and *Anticyclone?* State what you know of the mode in which the phenomena are generated.

5. A fire-balloon of 5000 cubic feet capacity weighs 50 lbs. How much must the air in it be heated so that it may just begin to rise when the temperature of the atmosphere is 32° F.?

9. Why is it that, under *apparently* similar conditions, we sometimes have a fog, and sometimes light rain without visible cloud?

7. With a head of 300 feet calculate the discharge through 2 miles of 4-inch pipe.

8. Describe, with drawings, an arrangement for the ventilation of a town drain terminating between high and low water mark.

9. How could you ascertain experimentally the quantity of water flowing along a small watercourse? Give the formula you would apply.

CHEMISTRY.

Monday, 3rd April 1882.—11 *to* 1 *o'clock.*

1. What are the Chemical and Physical differences between Butter and Oleomargarine?

2. Describe the mode of preparation, and action as a disinfectant, of each of the following:—

(*a*) Bisulphite of lime; (*b*) Condy's disinfecting fluid; (*c*) Carbolic acid.

3. How may the gases dissolved in the water supplied to a town be analysed? What conclusions can be drawn from the results of the analysis?

SANITARY LAW AND VITAL STATISTICS.

Tuesday, 4th April 1882.—11 *to* 1 *o'clock.*

All the Questions to be answered.

1. State the objects and leading provisions of the Alkali Works Acts.

2. State the leading provisions of the Common Lodging Houses Acts.

3. What is the constitution of the Local Government Board, and what are its chief functions?

4. What is meant by the expression Provisional Order?

5. What are the reasons for including Density of Population among the statistical data referring to Public Health?

In what terms is Density of Population commonly expressed?

6. State approximately the mean annual mortality of Great Britain?

What would you regard as a death-rate indicating a good sanitary condition of a town?

SECOND EXAMINATION FOR B.Sc.

The Natural Sciences.

GEOLOGY INCLUDING PALÆONTOLOGY AND MINERALOGY.

Friday, 14th October 1881.—2 *to* 5 *o'clock.*

1. Describe the work of the Sea as a Geological Agent.

2. Describe the processes of Weathering as illustrated by Granite and Limestone.

3. What are the proofs for former differences of Climate in Geological History?

4. Give the mineralogical characters of Quartz, Orthoclase, Muscovite, Tremolite, Kyanite, Tourmaline, Beryl, Selenite, Dog-tooth Spar, Blende, Pyrites, Hæmatite, Pyrolusite, Gold.

5. Describe the composition, microscopic structure, occurrence, and origin of Syenite, Felsite, Rhyolite, Basalt, Peperino, Diallage-rock, Marble, Eclogite, Picrite, Mica-schist, Quartzite, Serpentine.

6. Describe the system of Joints in a mass of Granite.

7. Describe the Structure of any Volcanic region.

8. Give an account of Faults, and explain how they may be inferred where not seen.

9. Describe the Cretaceous rocks of Britain.

10. Describe the strata between the top of the Silurian and base of the Carboniferous system in different parts of the British Isles, and trace their palæontological differences.

11. Make a table of the subdivisions of the Lias, and note the characteristic Ammonite of each zone.

12. Give an account of the Carboniferous Flora.

13. Describe the general structure, and give the geological range, of the Cystoidea, Phyllopoda, and Cephalopoda.

14. Give the characters and geological range of *Dipterus*, *Labyrinthodon*, *Ichthyosaurus*, *Dimorphodon*, *Archæopteryx*, *Hesperornis*, *Microlestes*, *Cervus*, *Mastodon*.

15. Name the Specimens placed before you, and state the geological formation of which each Fossil is characteristic.

PHYSIOLOGY.

Thursday, 13*th October* 1881.—11 *to* 1 *o'clock.*

1. Give an account (*a*) of the minute structure of non-striped and of striped muscular fibre; (*b*) of the several physical effects which follow the application of a momentary stimulus to an ordinary striped muscle, and of the manner in which their duration is measured.

2. Enumerate all the instances of reflex action that occur in the body; and in each case state where the nerve centre is known to be, or supposed to be, placed.

3. Describe the course of the blood in a mammal, amphibian, and fish. Why is the pulse usually confined to the arteries, and why does it sometimes extend into the veins?

4. Describe the development of the heart of a Chick.

3*d April* 1882.

1. Describe the manner in which the Umbilical Vesicle, Allantois, and Amnion are developed in a Chick, and describe the circulation of the blood just after the heart and vessels of the vascular area are developed.

2. Contrast the spinal reflex actions of a Frog with those of a Mammal.

3. Describe the chemical changes which the Proteids of the food are known to undergo within the body.

ZOOLOGY.

Thursday, 13*th October* 1881.—2 *to* 5 *o'clock.*

1. Describe in detail the structure and development of *Lepas* and *Sacculina*.

2. Give an account of the anatomy of Rhabdopleura, and state what you consider to be its affinities.

3. Give the process of development of the nervous system in Clepsine, and compare it with that found in the Tunicata and Vertebrata.

4. State the recent views as to the structure and development of the neuro-muscular system in the Cœlenterata, &c.

5. Describe the structure of *Chiton* in detail, and compare it with *Chætoderma*.

6. Give an account of the development and ultimate fate of the Amnion and Allantois in the Chick.

3*d April* 1882.

1. Describe concisely the structure of a common Starfish (*Asterias rubens*), and contrast it with that of an Echinid, and of an Ophiurid.

2. Describe the structure of a simple Ascidian, and state, giving your reasons, to what other group of animals you consider the Tunicata to be most nearly allied.

3. What are the leading structural peculiarities of the *Dipnoi?* Give the geographical distribution of the living species.

4. Give an account of the structure of the heart, the arrangement of the great blood-vessels, and the course and mechanism of the circulation in the common Frog.

Department of Public Health.

MEDICINE.

Thursday, 6th April 1882.—11 *to* 1 *o'clock.*

1. Name the chief pathological conditions resulting from lead poisoning, and state your views of the pathology of lead paralysis.
2. Describe the clinical history and post-mortem appearances in a case of poisoning by nitrous acid fumes.
3. What are the most recent observations with which you are acquainted as to the nature of the malarious poison?

PRACTICAL SANITATION.

Thursday, 6th April 1882.—2 *to* 5 *o'clock.*

1. What considerations practically regulate the size of the main drain of a dwelling-house? What are the objections to too large a drain? What are the objections to too small a drain? What is the usual size for a dwelling-house?
2. In a county town of 12,000 inhabitants the houses are drained by a common sewer which has numerous ventilating openings in the street. Complaints are made that bad smells come from these openings. What remedies occur to you? State the special circumstances to which each remedy would be applicable.
3. The natural outfall of sewage from this town is a small river which must not however be polluted. No land of sufficient extent for an irrigation farm can be procured. How could this sewage be dealt with? Give numerical data as regards the probable quantity of sewage to be dealt with, and as to the mode of dealing with it.
4. How could you practically measure the flow of sewage in a sewer 4 feet in diameter? Give the formula you would employ.
5. How should the pipes of earthenware drains be jointed? What should be the weight of lead per yard in a 5-inch soil-pipe? What precautions should be taken in supporting a leaden soil-pipe?
6. How can you test experimentally whether the drainage system of a dwelling-house is gas tight?
7. If asked to examine a dwelling-house with a view to ascertain whether it was fit for habitation, what are the points you would ascertain?
8. Explain the relative advantages and disadvantages of close and open stoves for dwelling-rooms.
9. How can ventilation be best secured in a low crowded room? When draughts are complained of what remedy would you suggest?
10. How would you proceed in endeavouring to trace out the origin of an epidemic of typhoid in a town?

11. What measures would you adopt in the case of an outbreak of purulent ophthalmia in a poorhouse or similar institution?

12. State in detail the directions which you would give for disinfecting a room, and its contents, in which there had been a case of small-pox?

Engineering.

Monday, 3rd April 1882.—11 *to* 1 *o'clock.*

1. If called upon to report on the stability of a semicircular brick arch bridge with special reference to the question whether a given traction engine could be safely allowed to pass, state (*a*) what points you would ascertain as to the bridge; (*b*) the series of calculations you would make.

2. Sketch a frame such as you would use to support a semicircular roof of 100 feet span. State what would be the various distributions and magnitudes of load against which you would provide, and give the reciprocal figure for one of these distributions of load into which the effect due to wind enters.

3. What sized wrought-iron shaft would you employ in a screw steamer: indicated $-$P.$=$1000; number of revolutions per minute, 150; length of shaft from thrust bearing to screw, 75 feet.

4. Sketch the cast-iron girders you might employ for a 50 feet railway bridge, giving the section at the centre and near the ends.

5. Can you justify the prevailing practice of making the machinery of a retaining wall at its base a fraction of its height? When would you feel bound to make special calculations instead of following the common rule? How would you make these calculations?

Monday, 3rd April 1882.—2 *to* 5 *o'clock.*

6. Explain the action of a hammer. State, generally, when a light hammer moving rapidly may be used, and when we must employ a heavy hammer. What form does the useful work done by a hammer take when a nail is driven in? What becomes of the rest of the energy of the mass of the hammer after striking the blow?

7. How could you calculate the force which the pins passing through the cranks of a connecting rod, must exert on the rod when the crank axle has a given angular velocity? Explain each step of the calculation.

8. Give a diagram showing a distribution of steam for a locomotive running in full forward gear. The diagram must show lap, lead, linear advance, cut off, pre-admission, compression, and exhaust.

9. Explain the advantage to be got by using superheated steam. Also the advantage expected from compound engines.

10. Explain the action of the Stirling engine. Given the lowest pressure, how would you calculate the highest pressure? What data would you require for this purpose, besides the lowest pressure.

Tuesday, 4th April 1882.—11 *to* 1 *o'clock.*

1. Define the metacentre of a ship. State how you would find the position of the metacentre. Explain the use to be made of the metacentre. How would you calculate the maximum angle to which a ship may heel over with safety?

2. Find the centre of pressure against a trapezoidal lock gate. The horizontal sill is 16 feet below the surface of the water, and is 15 feet wide. The width of the gate at the surface of the water is 25 feet.

3. A pipe five miles long of uniform diameter equal to 12 inches, conveys water from a reservoir in which the water stands at a height of 300 feet above Trinity high water mark, to a reservoir in which water stands at a height of 150 feet above the same datum. To what height will water rise in a supply pipe taken one mile from the lower end? For what pressure would you design the main at this point if it lies 20 feet above the level of the lower reservoir?

4. A pipe 12 inches diameter and 300 yards long is used as an inverted syphon to cross a valley. Water is led to it and away from it by an aqueduct of rectangular section 3 feet broad, and running full to a depth of 2 feet with an inclination of 1 in 1000. What should be the difference of level between the end of one aqueduct and the beginning of the other?

5. Explain how you would set out a circular curve for a railway—(*a*) with a theodolite, (*b*) with chain and tape. Give the formulæ you would employ.

Alternative question to 4 *or* 5.

If you deepen a navigable river, so as to increase the velocity of the propagation of the tidal wave, will this tend to bring up more sand or less sand from the sea, and state reasons for your opinion.

Tuesday, 4th April 1882.—2 *to* 5 *o'clock.*

6. What conditions must be fulfilled by the outline of the teeth of the spur wheels? Prove that involute teeth and epicycloidal teeth fulfil those conditions.

7. Show how the obliquity of the line of connection between spur wheels affects the friction of gearing. Explain how you could determine (from theory) the relation at any instant between a given effort driving a pinion and the resistance applied to the spur wheel which follows, neglecting the weight of the parts, but taking the friction at the bearings into account.

8. Given the tensions T_1 and T_2 for an open perfectly flexible belt joining two pullies of diameter D_1 and D_2 with bearings of the diameter d. Show how you could find the driving couple and resisting couple, taking friction into account. Neglect the weight of the parts.

9. Explain how you would fix the following dimensions for a reservoir:—

(*a*) The height of the embankment above high water level.

(*b*) The size of the waste weir.

(*c*) Sketch a normal profile for the embankment.
Give the formula by which you would calculate the discharge by the waste weir in terms of the heights of the water above the sill.

10. Describe the filtration of water by works designed with the object of removing impurities in suspension. Under what conditions is the ordinary domestic filter useful? Under what conditions may its employment be objectionable?

MATHEMATICS APPLIED TO MECHANICS.

Examiner—Professor TAIT.

Friday, 14th April 1882.—9 *to* 12 *o'clock.*

1. A point moves with a velocity proportional to the square root of the distance it has described from its position of rest; find the acceleration.

Why is it that it can start from rest under *this* condition, while it could not start if the velocity were proportional to the space described?

2. Show how to compound two simple harmonic motions of the same period and in the same line. Extend the result to periods *nearly* equal, and apply it to the phenomena of the tides.

3. Form and integrate the equation of motion of a simple pendulum, in a medium whose resistance is directly proportional to the velocity. In the case when oscillation is possible, find the effects on the amplitude and period.

4. Define Homogeneous Strain and Conjugate Strains. Hence show how to separate the pure and rotational parts of a strain.

5. A moving body passes through a uniformly dense cloud of equal particles at rest; those which it meets adhere to it. Find the acceleration due to this accession of mass.

6. Find the limiting positions in which a beam, resting on a *given* point of the ground, can be in equilibrium with its upper end supported by a rough wall.

7. Find the form in which a light chain will hang when it supports a load which is uniformly distributed along a horizontal line.

8. Find the distribution of force required to bend a uniform rod into a semicircle.

9. Prove that the path of an unresisted projectile is a parabola whose axis is vertical. Find the envelop of all the paths which can be described, the projectile leaving a given point with a given velocity.

10. Find, by any process, the velocity with which a transverse disturbance runs along a stretched cord.

11. Show how to calculate the velocity with which tension runs along a wire, as in moving a distant railway signal. What experimental data are required for the numerical value?

12. Calculate the motion of a mass attached to a cord wound on the axle of a fly-wheel and allowed to fall.

13. Find, by any process, the velocity with which a fluid, under given pressure, escapes from an orifice.

Physical Experimental Sciences.

CHEMISTRY.

Thursday, 13th October 1881.—11 *to* 1 *o'clock.*

1. Define Isomorphism. What assistance is obtained in the classification of elements from the occurrence of isomorphism among their compounds?

2. Compare the composition and properties of the phosphites with those of the arsenites.

3. Describe fully the preparation of pure chromous chloride from bichromate of potash.

4. Describe the experiments on the density of chlorine gas at high temperatures which have been held to indicate the dissociation of chlorine; and discuss their bearing on the question.

Thursday, 13th October 1881.—2 *to* 4 *o'clock.*

1. Define homologous series. What attempts have been made to ascend a homologous series? How far have these been successful?

2. Describe three independent methods for the artificial formation of Urea?

What is the action of heat upon Urea?

3. What is the constitution of each of the following substances :—

(*a.*) Guanidine.
(*b.*) Sarcosine.
(*c.*) Creatine.
(*d.*) Oil of bitter almonds.
(*e.*) Hippuric acid.

Give in each case the evidence upon which your answer is based.

4. Describe the action of acids on glycerine.

Monday, 3rd April 1882.—11 *to* 1 *o'clock.*

1. Give a short account of the salts corresponding to known or hypothetical oxides of sulphur, and state what you know as to their quantitative estimation.

2. The atomic weight of Uranium is by some given as 120, by some as 240. Give a summary of the arguments for and against each view.

3. Compare the corresponding compounds of Copper, Mercury, and Silver, indicating points of resemblance and of difference.

Monday, 3rd April 1882.—2 *to* 5 *o'clock.*

1. Discriminate the several groups of substances which are called

ethers. Give a general method for the preparation of the substances belonging to each group.

2. How is Sulphocyanide of Ammonium prepared? Describe the action of heat upon it.

3. How is Gallic acid prepared? What is its composition? What is the action of heat upon it?

4. Describe any methods which you know for the independent determination of Oxygen in organic substances.

EXPERIMENTAL PHYSICS.

Examiner—Professor TAIT.

20th October 1881.

(*Six only of the following questions to be answered.*)

Describe fully *one* method of determining :—

1. The *acceleration* due to gravity at any place.
2. The *thermal conductivity* of a liquid.
3. The *compressibility* of glass.
4. The rate of *approach* (or *recess*) of a star.
5. The *maximum density point* of water.
6. The *ratio* of the electrostatic and electromagnetic units.
7. The *wave-length* of a given kind of homogeneous light.
8. The *torsional rigidity* of a given wire.
9. The *thermo-electric position* of a metal.

Friday, 14*th April* 1882.—9 *to* 12 *o'clock.*

(*Six questions only to be answered.*)

1. Describe fully any process by which it can be proved that the velocity of light in glass is less than that in air.

2. Show how, from the temperatures indicated by thermometers whose bulbs are buried at different depths, we can calculate the conducting power of the earth's crust at any place.

3. What is meant by the capacity of a conductor, such as a Leyden jar, and how can it be measured?

4. Describe a trustworthy process for measuring the internal resistance of a galvanic cell.

5. Show how the two specific heats of a gas are most accurately determined.

6. Explain one mode of determining, by experiment, the surface-tension of a liquid.

7. How is the form of the wave-surface in a crystal to be found?

8. Describe a method for determining whether the maximum density point of water depends upon the pressure to which it is exposed.

Bursaries, Prizes, Scholarships, and Fellowships.

I.—FACULTY OF ARTS.

I.—BURSARIES.

No. of Foundation.	Year of Found.	Name of Founder.	Total Annual Income.	No. of Bursars.	For Years.	Annual Allowance to each Bursar.	Patrons.
I.	16—	George Heriot.	£200 0 0	10	4	About £20 0 0	Governors of George Heriot's Hospital.
II.	16—	Do. do.	Regulated by No. of Candidates.	5	4	30 0 0	Do.
III.	1619	Archibald Johnston, Merchant in Edin.	11 2 2	1	4	11 2 2	Earl of Haddington.
IV.	1622	John Trotter of Mortonhall.	4 10 1	1	4	4 10 1	Trotter of Mortonhall.
V.	1626 1629 1640	Hugh Wight and David M'Call.	4 14 5	1	4	4 14 5	Town Council and Louis of Plean, two choices alternately.
VI.	1639	Mr Robt. Johnstone of London.	25 0 0	2	4	12 10 0	Johnstone of Annandale.
VII.	1639	Do. do.	25 0 0	2	4	12 10 0	Town Council.
VIII.	1642 1653	Mausie Weir, relict of R. Dobie, Mer., & Dean of Guild of Edin., and D. Jenkins, Mer., Edin.	5 11 1	1	4	5 11 1	Town Council.
IX.	1644	Jas. Dalgliesh, Merchant, Edin.	11 2 2	1	4	11 2 2	Do.
X.	1673	Jn. M'Morran, Merchant.	2 15 6	1	4	2 15 6	Do.
XI.	1678	John Penman, Bailie and Merchant, Edinburgh.	14 15 0	1	4	14 15 0	Society for the Benefit of the Sons of the Clergy.
XII.	1678	Hector Ford of Branxton.	33 6 8	3	4	11 2 2	Town Council.
XIII.	1687	Sir Andrew Ramsay of Abbotshall.	11 2 2	1	4	11 2 2	Do. and Ministers of Edinburgh.
XIV.	1696	Hepburn and Light body.	5 16 8	1	4	5 16 8	Town Council and Campbell of Aberuchill, alternately.
XV.	1698	Ad Chrystie, Under Clerk of Session.	18 0 0	1	1	18 0 0	Faculty of Advocates.
XVI.	1702	Thos. Bryson, Bailie and Merchant in Dunbar.	10 0 0	2	4	5 0 0	Ministers of the Presbytery of Dunbar.
XVII.	1703	James Pringle of Torwoodlee.	6 7 9		4	6 7 9	Pringle of Torwoodlee.
XVIII.	1714	Rev. Robert Brown, of Protestant Consistory at Zamose	25 0 0		4	15 0 0 10 0 0	Town Council.

No. of Foundation.	Year of Found.	Name of Founder.	Total Annual Income.	No. of Bursars.	For Years.	Annual Allowance to each Bursar.	Patrons.
XIX.	1723	Alexander Mitchell, W.S.	£8 6 8	1	4	£8 6 8	Livingston Learmonth of Parkhall.
XX.	1725	William Wardrope, Litster, Edinburgh.	5 11 1	1	4	5 11 1	Wardrope of Torbanehill.
XXI.	1726	David Christie, Wigmaker, Edinburgh.	8 6 8	1	4	8 6 8	Town Council.
XXII.	1734	Laurence Dundas, Professor of Humanity in the University of Edin.	About 44 0 0	2	4	About 22 0 0	Jas. Dundas of Dundas, Robt. Dundas of Arniston, and Dundas of Carronhall, by turns.
XXIII.	1764 1766	Rev. J. Penman, Min. of Bothkenner.	5 8 0	1	4	5 8 0	Little Gilmour of Craigmillar.
XXIV.	1768	Thos. Fraser, Clerk in the office of City Clerk, Edinburgh.	36 0 0	2	7	18 0 0	The Provost, Dean of Guild, and Treasurer of Edin.
XXV.	1778	Jas. Shortt, Optician, Edinburgh.	9 0 0	1	4	9 0 0	Earl of Morton.
XXVI.	1784	William Hume, Eastbarns, Dunbar.	16 0 0	2	4	8 0 0	Ministers of the Presbytery of Dunbar.
XXVII.	1784	Rev. Jas. Millar and Spouse.	24 0 0	1	4	24 0 0	Kirk-Session of Kippen.
XXVIII.	1809	Dr Donald Grant of London Street, in the parish of St Pancras, London.	180 0 0	2	4	90 0 0	Earl of Seafield, and James Mackenzie, W.S., and their reps., as Dr Grant's Trus.; whom failing the Sen. Acad.
XXIX.	1810	Rev. James Stewart.	About 30 0 0	3	3	About 10 0 0	Senatus Academicus.
XXX.	1821	Sir J. M'Pherson.	96 0 0	2	2	48 0 0	Senatus Academicus.
XXXI.	1837	James Menzies	200 0 0	4	4	25 0 0	Sir Robert Menzies, Bart., and the Ministers of Dull, Weem, and Fortingall.
XXXII.	1838	Robert Blair, D.D., Barton St Andrews, Norfolk.	10 0 0	1	4	10 0 0	Principal and Professors of Humanity, Greek, Mathematics, Logic, and Metaphysics, and Moral Philosophy.
XXXIII.	1846	John Jamieson, Esq., Edinburgh.	About 26 0 0	1	4	About 26 0 0	Principal, and two Professors of the University.
XXXIV.	1846	G. P. Bidder, C.E.	40 0 0	1	4	40 0 0	Senatus Academicus.
XXXV.	1852	Wm. Lennie, Esq.	48 0 0	4	..	12 0 0	Town Council.
XXXVI.	1853	John Bruce, Esq. Trinity Crescent, Edinburgh.	160 0 0	1 4	4 4	40 0 0 30 0 0	Do.
XXXVII.	1858	M'Diarmid Trustees.	10 0 0	1	3	10 0 0	Senatus Academicus.
XXXVIII.	1860	Wm. Patrick, Esq., of Roughwood.	About 90 0 0	1 1	2 2	About £60 ,, £30	Principal and Professors in Arts.

No. of Foundation.	Year of Found.	Name of Founder.	Total Annual Income.	No. of Bursars.	For Years.	Annual Allowance to each Bursar.	Patrons.
XXXIX.	1858	Edinburgh Ayrshire Club.	50 0 0	2	2	£25 0 0	Edinburgh Ayrshire Club.
XL.	1863	Peeblesshire Society.	40 0 0	3	4	{ 10 0 0 { 15 0 0	Peeblesshire Society.
XLI.	1864	Ed. Galloway Asso.	20 0 0	1	4	20 0 0	Ed. Galloway Asso.
XLII.	1864	Ed. Caithness Asso.	10 0 0	1	4	10 0 0	Ed. Caithness Asso.
XLIII.	1864	A. H. Rhind of Sibster.	Interest of 500 0 0	1	4	About 20 0 0	Edin. Caithness Asso.
XLIV.	1865	Mrs Margt Tyndall Bruce, of Falkland.	165 0 0 {	3	3	35 0 0	} Senatus.
				3	3	20 0 0	
XLV.	1865	Horsliehill Scott Bursaries.	82 0 0	2	2	41 0 0	Do.
XLVI.	1867	Miss Hannah Harrison, of Lasswade,	37 0 0 About	1	2	37 0 0 Above	Do.
XLVII.	1867	Rev. John Spence.	100 0 0	2	4	50 0 0	Trustees of Rev. J Spence.
XLVIII.	1869 1872	Edin. Border Counties Association.	50 0 0	2	4	30 0 0 & 20 0 0 About	Edinburgh Border Counties Assoc.
XLIX.	1869	Argyllshire, Bute, and Western Isles Asso.	12 0 0	1	4	12 0 0	Argyllshire Association.
L.	1870	Stewart of Ardvoirlich.	About 14 8 0 About	1	4	About 14 8 0 About	Proprietor of the Estate of Ardvoirlich.
LI.	1870	David Cowan.	35 0 0 About	1	2	35 0 0	Directors of Ayr Academy.
LII.	1871	J. Robertson Sibbald.	150 0 0	5	4	30 0 0	Tr. of Dr J. R. Sibbald.
LIII.	1872	Angus Club.	25 0 0 About	1	4	25 0 0	Angus Club.
LIV.	1873	Earl of Zetland.	40 0 0 About	1	3	40 0 0	Trustees of Earl of Zetland.
LV.	1873	The Grierson Trus.	360 0 0	5	4	{ 20 0 0 { £4 0 0	} Senatus.
LVI.	1874	Upper Ward of Lanarkshire.	20 0 0 About	2	4	20 0 0 About	Upper Ward Assoc.
LVII.	1874	Johnstone of Harthope.	20 0 0 About	1	4	17 10 0 About	Senatus.
LVIII.	1874	James Lambert.	40 0 0	1		20 0 0	Senatus.
LIX.	1874	Fife, Clackmannan, & Kinross Assoc.	15 0 0 About	1	4	15 0 0 About	Fife, &c., Assoc.
LX.	1875	Robert Marshall.	40 0 0	1	4	35 0 0	Senatus.
LXI.	1876	J. Fothringham of Heathpool,	About 40 0 0 About	2	4	About 17 10 0	Senatus.
LXII.	1877	Earl of Zetland.	165 0 0	4	3		Trustees.
LXIII.	1878	Edin. E. Lothian Asso.	20 0 0	1	3	20 0 0	Association.
LXIV.	1878	{ Edin. University { Endowment Asso.	} 100 0 0	5	3	20 0 0	Senatus Academicus.
LXV.	1878	Jas. Gillan.	105 0 0	3	3	35 0 0	Trustees of J. Gillan.
LXVI.	1878	Dr Andrew Thomson.	100 0 0 About	4	4 4	25 0 0 About	Trus. of Dr Thomson
LXVII.	1880	Rev. John Patterson	20 0 0	1		20 0 0	Senatus Academicus.
LXVIII.	1880	High. and Agri. Soc.	200 0 0 About	10	1	20 0 0 About	Highland Society.
LXIX.	1881	Thomas Carlyle.	200 0 0	10	4	20 0 0	Senatus.

CONDITIONS OF FOUNDATIONS AND NAMES OF BURSARS.

I. These *Heriot Bursaries* are for Students unconnected with the Hospital, entering upon the regular Curriculum in Arts, who upon examination exhibit evidences of good scholarship. *Bursars*—GEO. WALKER, THOS. O. SCOTT, ALEX. M. C. TOLMIE, WM. CRAWFORD, ANDREW KING, ALF. A. MURRAY, WM. H. RANKINE, DAVID S. CAIRNS, G. G. SMITH, VICTOR V. BRANFORD.

II. *Do.* Young men who, upon leaving Heriot's Hospital, are, after examination, declared hopeful scholars, and fit to follow any of the liberal professions, are entitled to a Bursary of £30 a-year for four years, with a view to attendance on the regular course in Arts. *Bursars*—JOHN E. FALCONER, ROBT. S. THORNTON, DAVID TAYLOR, JOHN G. KENNEDY, CLARENCE B. WATERS, ROBERT MACDOUGALD, JAS. G. FORRESTER, WM. SUTTIE.

III. *A. Johnston Bursary.*—Each Bursar is entitled to hold the Archibald Johnston Bursary for four years, subject to the conditions that he shall pass such examination as may be required of Presentation Bursars, and shall proceed through the Curriculum in Arts, and pass the Departmental Examinations for M.A. appropriate to each year. No one is permitted to hold the Bursary along with any other Bursary in the University. The Bursar must attend the Classes in the Arts Curriculum. *Bursar*—ALFRED WARR, 1879.

IV. *Trotter Bursary. Bursar*—ALFRED BELL, 1880.

V. *Wight and M'Call Bursary. Bursar*—FRED. JOHN BISHOP, 1881.

VI. and VII. *R. Johnstone Bursaries.*—By Ordinance No. 82, the holder of each of the four Robert Johnstone Bursaries is entitled to hold his Bursary for four years, subject to the condition that he shall pass such entrance examination as may be required of Presentation Bursars, and shall proceed through the Curriculum in Arts, and regularly pass the Departmental Examination required of Students proceeding to the degree of M.A. No person is allowed to hold any of these Bursaries along with any other Bursary in the University. *Bursars*—JAMES SMITH LAWSON, 1881; GEORGE UNDERWOOD RAE, 1880; JOHN T. HOLLIDAY, 1880; WM. CROMB, 1880.

VIII. *Weir and Jenkins Bursary.*—For a Student in Arts, who must follow the Curriculum for the Degree. *Bursar*—JAMES ADAMS, 1880.

IX. The *Dalgliesh* Bursar is entitled to hold the Bursary for four years, subject to the condition that he shall pass such entrance examination as may be required of Presentation Bursars, and shall proceed through the Curriculum in Arts in the University, and regularly pass the Departmental Examinations required of Students proceeding to the Degree of M.A. No person is allowed to hold the Bursary along with any other Bursary in the University. *Bursar*—JOHN D. ROSE, 1881.

X. *M'Morran Bursary.*—This Bursary is for a Student of Philosophy in the Arts Curriculum. *Bursar*—ALFRED BELL, 1880.

XI. *Penman* Bursar.—The Bursar must attend the Classes in the Arts Curriculum. *Bursar*—JAMES JOHN DRUMMOND, 1881.

XII. Each *Ford* Bursar is entitled to hold his Bursary for four years, subject to the condition that he shall pass such entrance examination as may be required of Presentation Bursars, and shall proceed through the Curriculum in Arts, and regularly pass the Departmental Examinations required of Students proceeding to the Degree of M.A. No person is permitted to hold any of the Bursaries along with any other Bursary in the University. *Bursars*—JOSEPH N. O'NEIL, 1880; JOHN DICKSON, 1881; JOHN KEIR, 1881.

XIII. Each *Sir A. Ramsay* Bursar holds his Bursary for four years, subject to the condition that he shall pass such entrance examination as may be required of Presentation Bursars, and shall proceed through the Curriculum in Arts, and regularly pass the Departmental Examinations required of Students proceeding to the degree of M.A. No person is permitted to hold either of the Bursaries along with any other Bursary, Fellowship, or Scholarship of any Scottish University. *Bursar*—ANDREW JAMES RAMSAY, 1880.

XIV. The *Hepburn and Lightbody Bursary* was founded by Sir Colin Campbell, Lord Aberuchill, and Sir Patrick Aikenhead, as executors of Sir Patrick Hepburn of Blackcastle. It is for a Student of Philosophy who follows the Curriculum in Arts. *Bursar*—W. B. POLLOCK, 1880.

XV. The *Chrystie Bursary* is usually held for four years. The Bursar is taken bound to attend "the usual classes," and must produce yearly to the Faculty a certificate from the respective Professors of his due attendance, and the diligent prosecution of his studies. Candidates are referred for information to the Clerk to the Faculty of Advocates, Parliament House. *Bursar*—ALEX. M. MACLEAN, 1880, for three years.

XVI. The *Bryson* Bursars are first to enter the Humanity class: afterwards they are to pass through the rest of the classes in Arts until their Laureation; at which time, if judged by the ministers of the Presbytery of Dunbar fit for the study of Theology, they may continue for two years in Theology. *Bursars unknown.*

XVII. The *Pringle Bursary* was founded by James Pringle of Torwoodlee for a Bursar in Philosophy and Divinity. *Bursar—Vacant.*

XVIII. The *Brown Bursaries* are payable to Bursars in the regular course of study in Arts. *Bursars*—WM. BURNETT, 1880; GEO. ALEX. ROSS, 1881.

XIX. The *Mitchell Bursary* is payable to a student during a regular course of four years in the Faculty of Arts, and during two years (if the Patron think fit) at the Divinity Classes. *Bursar—Vacant*, 1881.

XX. The *Wardrope Bursary* is for the maintenance and support of a Bursar of Philosophy in the University. *Bursar*—ALFRED BELL, 1880.

XXI. This *Christie Bursary* may be held by a Student during a regular course of four years in the Faculty of Arts. *Bursar*—DUNCAN A. M'LAREN, 1880.

XXII. *Dundas Bursaries.*—The Patrons are directed to prefer the Mortifier's near relations; failing such, those of the surname of Dundas; and failing such,

any other persons at their discretion. By Ordinance No. 78 of the Universities' Commissioners, each person presented to either of the Dundas Bursaries is entitled to hold the same for four years as a Student of Arts, subject to the condition that he shall pass such entrance examination as may be required of Presentation Bursars, and shall proceed through the Curriculum in Arts, and shall regularly pass the Departmental Examinations required for M.A. *Bursars*—A. WATSON HUTTON, 1878; WILLIAM DUNDAS, 1879.

XXIII. The *Penman Bursary* is payable to a "Student of Philosophy" for the period of four years at the University ofEdinburgh, in the Curriculum of Arts. *Vacant.*

XXIV. The *Fraser Bursaries* are for maintaining two Students of the name of Fraser, till they finish their course and take the Degree in the Faculty of Arts, and for three years thereafter; they making their election whether to follow Divinity, Law, or Medicine. Two Classes at least must be attended each winter Session. Candidates should apply to the City Clerk, Council Chambers, Edinburgh. *Bursar*—A. R. FRASER, 1875. *One vacant.*

XXV. The primary object of the *Shortt Mortification* is the establishment of a Bursar of Mathematics. The Bursar must attend the Classes in the Curriculum in Arts. *Bursar*—GEORGE L. ANDERSON, 1881.

XXVI. The conditions of the *Hume Mortification* correspond with those of Bryson's, No. XVI., and the presentations and payments are made as in that case. *Vacant in* 1880.

XXVII. *Millar Bursary.*—To be held by a Student intended for the Ministry in the Church of Scotland, during his Curriculum in the Faculty of Arts. *Bursar*—R. L. GOODFELLOW, 1880.

XXVIII. The *Grant Mortification* is for two Students of the University of Edinburgh, of the name of Grant. The holders must attend at least three Classes in the Curriculum of Arts during each Winter Session, and certificates to that effect are required before their Bursaries are paid. Application for information may be made to Messrs Mackenzie, Innes, & Logan, W.S., 23 Queen Street, Edinburgh. *Bursars*—JOHN GRANT, 1881; MAXWELL GORDON GRANT, 1881.

XXIX. *Stewart Bursaries.*—Candidates must be in the *second* year of attendance in the Cirriculum of Arts. Bursars must attend Logic and the other Classes usually attended in that year, with a view to the Degree in Arts. *Bursars*—W. G. ALLAN, 1880.

XXX. The *Macpherson Bursary* is intended for the benefit of Students who are natives of the Highlands. It is now bestowed on a Student at the commencement of the *third* year of his regular course in Arts, with a view to the Degree. It is tenable for two years, during which the Bursar must attend Classes in the Curriculum of Arts. Candidates must have a knowledge of Gaelic. *Bursars*—J. W. MACDONALD, 1880; JOHN FRASER, 1881.

XXXI. *Menzies.*—These Bursaries, four in number, were founded in 1837, by James Menzies, Esq., Glasgow. They are of the annual value of £25 each, and

tenable for four years, in any one of the Universities of St Andrews, Glasgow, or Edinburgh. Preference first to the relations of the Founder, next, to the name of Menzies; failing whom, to persons born on the estate of Sir Robert Menzies, Bart., within the parishes of Dull, Weem, and Fortingall; failing whom, any Student who shall be found best qualified may be appointed. Patrons—Sir Robert Menzies, Bart., and the Ministers of the parishes of Dull, Weem, and Fortingall.

XXXII. The *Blair* Bursar must attend the Classes in the required order, and pass the Departmental Examinations necessary for the Degree of M.A. Applications to be made to the Professor of Logic and Metaphysics. *Vacant.*

XXXIII. The *Jamieson Bursary* is for the benefit of the sons of schoolmasters, farmers, mechanics, and labourers, and, primarily, other persons born and residing within any one of the following parishes—viz., Crawfordjohn, Crawford, united parishes of Lamington and Wandell, united parishes of Wiston and Roberton, Culter and Biggar. The Bursar must attend the usual Classes, and pass the Departmental Examinations necessary for the Degree in Arts. *Vacant.*

XXXIV. Called the "*Jardine Bursary*," being founded by Mr Bidder, C.E., as a memorial of the munificence of Sir Henry Jardine to him, to which he owed the advantage of his education at the University of Edinburgh. Candidates must be natives of Scotland. The Bursar must attend the Classes, and pass the Departmental Examinations necessary for the Degree in Arts. *Bursar*—W. M. Traill, 1880.

XXXV. *Lennie Bursaries.*—Bursars must attend the Classes in the Arts Curriculum. Candidates should apply to the City Clerk, Council Chambers, Edinburgh. *Bursars* — Louis H. Gow, Robt. Lee Campbell, David Tweedie, John Liddel.

XXXVI. *Bruce Bursaries.*—Prior to the commencement of each Winter Session, five Students are presented yearly, the most distinguished of the five receiving the £40 Bruce Bursary. The Bursars must be in regular attendance on the Classes necessary for the Degree of Master of Arts. Candidates announce their names at the Council Chambers to the City Clerk. *Bursars*—A. H. W. Macdonald, Wm. Thomson, Robt. H. Watson, Geo. H. C. M'Gregor, Alexander Still.

XXXVII. The *M'Diarmid Bursary* is a memorial of the late John M'Diarmid, Esq., Editor of the *Dumfries and Galloway Courier.* Candidates must be natives of the county of Dumfries or the stewartry of Kirkcudbright. The Bursar must attend the Classes and Examinations necessary for the Degree in Arts. Applications regarding the Bursary to be made to H. Gordon, Esq., Dumfries. *Bursar*—J. G. Clark, 1880.

XXXVIII. The *Patrick Bursaries* are for the assistance of those who have completed a course of education at any of the public schools or academies in the county of Ayr, where a course of Classical Study is pursued, and who are thus in a condition to apply for admission into the University. Their value fluctuates, being, for the first, two-thirds of the dividend on £3000 Glasgow and South-Western Railway Stock; and for the second, the remaining third of said dividend.

The Bursars must attend the Classes and Examinations necessary for the Degree in Arts, in the order required by the Faculty. *See* p. 197 of CALENDAR for 1865-66. *Bursars*—R. MILLER, 1880; R. F. ROBERTSON, 1880.

XXXIX. *Ayrshire Club Bursaries.*—Awarded after competitive examination to natives of Ayrshire requiring aid, and tenable during the Curriculum in Arts, on condition of regular attendance at the Classes, with a view to the Degree. Information will be afforded by the Secretary of the Club, Mr A. H. Cooper, 8 South Charlotte Street. *Bursar*—A. B. MACCALLUM, 1881.

XL. *Peebles-shire Bursaries.* — Candidates must be natives of Peeblesshire, must have been educated at a school or schools within the county of Peebles, and must pursue the Curriculum of Arts, at the University, with a view to the degree in Arts. Schedules will be supplied to applicants by the Secretary of the Society, Mr T. Gibson, 18 Palmerston Place. *Bursars*—ALEX. TAIT, AND. BONTHRON, J. W. MURRAY.

XLI. *Galloway Bursary.*—Awarded after competitive examination to a Student about to enter the Curriculum in Arts, with a view to a Degree in Arts. Application to be made to W. Guthrie, Esq., Sheriff Sub., Glasgow.

XLII. and XLIII. *Caithness and Rhind Bursaries.*—Bursars must attend the Classes in the Arts Curriculum. Apply to the Secretary of the Association.

XLIV. *Bruce of Grangehill and Falkland's Bursaries.*—Three of these Bursaries, of the annual value of £35, are awarded after competitive examination to Students of the *second* year in their course of study for a Degree in Arts; and three others, of the annual value of £20, to Students entering the *first* year of the Arts Curriculum. *Bursars*—Second year, ROBERT E. ALLARDYCE, 1879; DANIEL TOD, 1880; DAVID DOUGALL, 1881. First year, G. W. STEWART, 1879. *Two Vacant.*

XLV. *Horslichill-Scott Bursaries.*—Annual value £35 to £41, under deduction of £6, 6s. for Examiners' fees from first year's payments. Open to Students in the *third* year of their course for a Degree in Arts, and tenable for two years. The examination is in Classics, Mathematics, and Logic and Metaphysics. Deed of Foundation, at p. 208 of CALENDAR for 1866-67. *Bursars*—GEORGE MACDONALD, 1880; ANDREW ROWAND, 1881.

XLVI. The *Harrison Bursary* is of the annual value of from £32 to £37, under deduction of £6, 6s. of Examiners' fees from first year's payments. Open to Students in the *third* year of their course in the Faculty of Arts, with a view to a degree, and is tenable for two years. It is to be awarded to the competitor who shall show the greatest proficiency in Classics, Mathematics, and Logic and Metaphysics. *See* Deed of Endowment, p. 231 of CALENDAR for 1867-68. *Bursar*—C. W. C. BARLOW, 1880.

XLVII. By the regulations of the Trustees, the *Spence Bursaries* are open to Students under twenty-one about to enter on the second or third Session of

their course who are proceeding to graduation within two years after their appointment. After graduation, the Bursars may proceed to the study of their profession, or else devote themselves to special study in Theology, Philosophy, Science, or History. They must give attendance at this University on at least one University Class on the special subject to which they devote themselves. Further information will be afforded by Messrs J. & H. Patullo, writers, Dundee.

XLVIII. *Border Counties and Sir Walter Scott Bursaries.*—Candidates must be natives of the counties of Roxburgh, Berwick, or Selkirk, and must attend the classes necessary for a Degree in Arts. Application to be made to Mr T. Usher, Sheriff Court House, Edinburgh. *Sir W. Scott Bursar*—R. MUIR, 1880; *Border Counties Bursar*—JAMES CURRIE, 1881.

XLIX. *Argyllshire Bursary.*—To be held by natives of Argyllshire, Bute, or Western Islands. The holder must attend the classes necessary for a Degree in Arts. Application may be made to Donald Beith, Esq., W.S., 41 Castle Street, Edinburgh. *Vacant.*

L. *Ardvoirlich Bursary.*—Open to Students of Arts, natives of the parishes of Comrie, Balquhidder, Callander, and Killin. The holder must attend classes necessary for a Degree in Arts. Applications to be made to the Proprietor of the estate of Ardvoirlich, or his Factor. Candidates are examined by a Board, of which the Minister of Comrie is chairman. *See* Deed of Foundation at p. 275 of CALENDAR for 1870-71.

LI. *Cowan Bursary.*—Candidates must be about to enter the Curriculum in Arts. Information will be afforded by W. F. M'Cubbin, Esq., Ayr. *Bursar*—LOCKHART W. C. MURE, 1881.

LII. *Sibbald Bursaries.*—*First*, The Bursaries, each tenable for three years, are available to Students in the Faculty of Arts, Medicine, Law, or Divinity. *Second*, The Bursaries to be held by Students entering the University who have not previously attended any University in the United Kingdom or elsewhere, *and who do not hold any other Bursary or Scholarship;* but no objection to a Candidate that he has, during the previous Summer Session, attended any of the Classes in the University of Edinburgh required by the Faculties of Medicine or Law. *Third*, The Bursaries competed for by examination at the commencement of each Winter Session, and in every case bestowed upon the Candidates in their order of merit. *Fourth*, The Competitive Examination for the said Bursaries conducted by such Examiners, and under such regulations, satisfactory to the Trustees, as the Senatus Academicus shall from time to time appoint. Until further announcement the Examination shall embrace the following subjects:—1. *Latin*—Translation from Latin into English, and from English into Latin; with questions Grammatical and Literary. 2. *Greek*—Translation from Greek into English, and from English into Greek; with questions Grammatical and Literary. 3. *Mathematics*—Arithmetic; Euclid, six books; Elements of Trigonometry; and Conic Sections treated Geometrically. 4. *English*—Grammar

and Composition. *Fifth*, Before being admitted to compete, each Candidate must produce to the Trustees, or to their Factors and Cashiers, a Certificate by a Professor of the University of Edinburgh, or by a householder in Edinburgh, or from a former teacher, to the effect that he is a person of respectability and good conduct. *Sixth*, In the event of a Bursar being expelled or rusticated from the University, he shall *ipso facto* forfeit his Bursary during the remainder of its currency. *Seventh*, It shall be in the power of Dr Sibbald's Trustees at any time, on a report from the Principal of the University for the time being, of misconduct on the part of the holder of any Bursary, to declare forfeited, or to suspend for such period as they may think proper, any of the Bursaries. *Eighth*, The said Bursaries shall be payable by two equal portions, on 11th November and 15th April,—beginning the first payment of one-half of each year's Bursary on 11th November immediately following the commencement of the Winter Session, and the payment of the second half thereof on 15th April thereafter, and so on during the currency of each Bursary; and each Bursar shall produce to the Trustees, or to their Factors and Cashiers, in order to entitle him to receive payment of the first Instalment, the Tickets for the Classes which he is to attend during the then current Session; and in order to entitle him to receive payment of the second Instalment, Certificates of regular attendance at said Classes; and every Bursar shall attend in each Winter Session at least two Classes in the University of Edinburgh. Application to be made to Messrs Mackenzie, Innes, & Logan, W.S., 23 Queen Street, Edinburgh. *Bursars*—G. GIBSON, R. L. GALLOWAY, 1879; D. TOD, 1880; W. B. BROWN, 1881.

LIII. *The Angus Club Bursary.*—For particulars applieation may be made to the Secretary of the Club, Mr Burness, 6 George Street. *Bursar*—F. W. STEWART.

LIV. *Orkney and Zetland Bursary.*—Open to first year's Students (male or female), natives, or children of parents who are natives of the County of Orkney and Zetland. It is tenable for three years. The Bursar must attend the Classes in the Curriculum in Arts, with a view to a Degree. Applications to be sent to Messrs H. G. & S. Dickson, W.S., 12 Castle Terrace, Edinburgh. The Deed of Foundation will be found in CALENDAR for 1873-74, p. 329. *Bursar*—G. W. REID, 1881.

LV. *Grierson Bursaries.*—Four Bursaries of £20 each, and one of £26, awarded annually in November, under the patronage of the Senatus. By the scheme of allocation arranged with the Trustees, they are restricted in the first place to natives of either of the parishes of Crawford or Leadhills, provided that any such shall lodge an application with the Secretary of the Senatus on or before the 1st of October in each year; but before any such preferential Candidate can be appointed, he must pass an examination, satisfactory to the Senatus, in Elementary Latin, English, and Arithmetic, and also satisfy the Senatus that he is steady and well behaved, that he has shewn himself a diligent scholar, and that he requires pecuniary aid to enable him to pursue his studies. In the event of more than one preferential

Candidate, the examination is competitive among such candidates. If no preferential Candidates announce themselves to the Secretary of the Senatus before the 1st of October, the Bursary for that year is thrown open for competition to all Students then intending to enrol in the University for the First Session of the Curriculum in Arts, the subjects of examination being those prescribed for Bursars of the First Year. The Grierson Bursary is tenable for four years, provided that the Bursar continues regularly to follow the Curriculum in Arts during that period; and if he should complete his curriculum within three years, the Senatus may continue it for one other year, provided the Bursar pursues further his studies in the higher classes of the Curriculum in Arts, or in one of the Faculties of the University, and that they are satisfied with his progress and conduct. *See* Note of Trust Disposition of Founder at p. 335 of CALENDAR for 1873-74, and p. 368 of the CALENDAR for 1877-8. *Bursars*—J. T. MORRISON, 1878; J. A. SMITH, 1879; D. MACMICHAEL, 1881. *Two vacant from resignation.*

LVI. *Lanarkshire* (Upper Ward of) *Bursaries.* — Bursars must attend the Classes in the Arts Curriculum. *Vacant.*

LVII. *Johnstone of Harthope Bursary.* Natives of Moffat, Peebles, and Students of the name of Alexander or Johnstone preferred, if preferential candidates announced to Secretary of Senatus before 1st of October. *See* Deed of Foundation, at p. 350 of CALENDAR for 1875-76. *Bursar*—J. DOWNIE, 1880.

LVIII. *Lambert Bursary.*—This Bursary cannot be instituted until after the death of an annuitant. *See* Deed of Foundation, at p. 342 of CALENDAR for 1875-1876.

LIX. *Fife and Kinross Bursary.*—Open only to Students from Fife, Clackmannan, and Kinross. Applications may be made to the Secretary, W. B. Glen, 6 North St Andrew Street, Edinburgh.

LX. *Marshall Bursary.*—Restricted in the first place to relatives of Founder, next to Students of the name of Marshall, and natives of West Lothian. *See* Deed of Foundation, at p. 347 of CALENDAR for 1876-77. *Bursar*—JAMES MARSHALL, 1880.

LXI. *Fothringham and Forrest Bursaries.* Relatives or namesakes of the Founder, then such as are of the name of Forrest, to be preferred. *Bursars*—R. FOTHERINGHAM, 1880; J. E. LOCKHART MURE, 1881.

LXII. *Earl of Zetland's Bursaries.*—For Deed of Foundation of these Bursaries, *see* p. 373 of CALENDAR for 1877-78. Application may be made to Messrs Dickson, W.S., Castle Terrace.

LXIII. *Edinburgh East Lothian Association's Bursary.* Open to any lads educated at any public school in East Lothian, and who, during three years immediately preceding the examination, have not attended any school out of the country, or any university. Application may be made to J. PURVES, S.S.C., 37 George Street. *Bursar*—JOHN E. KEIR, 1881.

LXIV. *Edinburgh University Endowment Association's Bursaries.*—Two of these bursaries were open to competition at the commencement of session 1880-81. and other two will be filled up at the commencement of session 1881-82. They are open to Students entering the Faculty of Arts for the first time, and the Examination is held at the annual Arts Bursary Competition. Bursars must proceed through the Curriculum in Arts, and pass the Examinations for the Degree of M.A. Cannot be held with any other Bursary. *See* Minute of the Endowment Association, among Deeds of New Foundations, p. 375 of CALENDAR for 1878-9. *Bursars*—F. W. JARVIS, 1879; J. A. CLYDE, W. S. CURRIE, J. D. FLEMING, R. OSBORNE, 1880.

LXV. *Gillan Bursaries.*—Founded in 1878 by James Gillan, Forres. Three of £35 each, two open to natives of Forres, and one to natives of Dyke. Candidates must attend the Arts Curriculum in the University of Edinburgh, and afterwards the New College, Edinburgh, with a view to the ministry of the Free Church. For particulars application may be made to Messrs R. & R. Urquhart, Solicitors, Forres.

LXVI. *Thomson Bursaries.*—Candidates of, the name of Thomson or Traquair, or natives of the town or county of Dumfries or of the city of Edinburgh, preferred. Apply to Messrs Traquair, Dickson, & Maclaren, W.S., 11 Hill Street. *Bursars*—JAMES GEDDES, 1879; A. H. DOUGLAS, A. GEOGHEGAN, 1880; ROBERT LATTA, 1881.

LXVII. *Patterson Bursary.*—For Anglo-Saxon. To come into operation on the death of an annuitant. *See* Deed of Foundation at p. 379 of CALENDAR for 1880-81.

LXVIII. *Highland and Agricultural Society's Bursaries.*—The Society annually grants £200 for ten Bursaries of £20 each, tenable for one year, at the University of Edinburgh, for the purpose of enabling the holders to take the classes necessary to qualify for the Society's Certificate or Diploma, to be determined by examination held in Edinburgh by the Society's Examiners.

LXIX. *John Welsh Bursaries*, founded by Thomas Carlyle in 1881, in memory of his Father-in-law, to whom the estate of Craigenputtock in Dumfriesshire, bequeathed by Mr Carlyle to the University of Edinburgh, formerly belonged. The Bursaries are to be paid from the rents of that estate, and are ten in number, of the value of about £20 each, tenable for four years. They are to be awarded after competition, and to be given to Students entering the University, and who have not studied in any other University. Five are to be given to the competitors most proficient in Mathematics, and five to those most proficient in Classics. The Examiners are to be Professors in the University. They are not to be held with any other Bursary. These Bursaries cannot be available before session 1886-87.

II.—PRIZES.

THE LORD RECTOR'S PRIZE.

The Right Hon. the EARL OF ROSEBERY, Lord Rector of the University, having signified his intention of offering a Prize of Twenty-five Guineas annually, during his tenure of office, for the best Essay on a Historical Subject, the following was the subject for 1881-2 :—"The Ecclesiastical System of Scotland immediately before the Reformation," and it was gained by HENRY PATON, M.A.

The subject of the prize for 1882-3 is "*The Influence of France on Scottish Life and Character.*"

The above Prize is open to be competed for by all Students of the University of Edinburgh, not being Masters of Arts of more than two years' standing, or who, on the 1st November next, shall not have left the University more than two years.

Essays in competition for the Lord Rector's Prize should be sent in to the Principal of the University on or before the 1st November 1882. Each Essay must be sent anonymously, distinguished by a motto, and accompanied by a sealed cover, with the motto written on the outside, and containing the name and address of the author of the Essay, and a statement of his University standing.

I.—BRUCE OF GRANGEHILL AND FALKLAND'S PRIZE IN THE CLASSES OF LOGIC AND METAPHYSICS.

This Prize of £20, awarded to the most distinguished student in this class, "on such conditions and competition as the Professor may direct, and on his decision," for excellence in the study of Logic and Metaphysics, was founded in 1865, by Mrs Tyndall Bruce of Grangehill and Falkland, in commemoration of John Bruce, Professor of Logic and Metaphysics in the University, 1774-1786.

1866.	Thomas M. Lindsay, M.A.	
1868.	George Forbes, M.A.	
1869.	Charles B. Bright M'Laren, M.A.	
1870.	Robert Adamson, M.A.	
1871.	Robert Campbell, M.A. Matthew Robertson, B.A. (Lond.)	equal
1872.	D. M. Ross, M.A. Donald Ross, M.A.	equal.
1874.	D. G. Ritchie, M.A.	
1873.	Leslie C. Elmslie, M.A. Alfred Momerie, M.A., D.Sc.	equal.
1875.	William R. Sorley, M.A.	
1876.	Richard Burdon Haldane, M.A. Prasanna Kumár Ráy, D.Sc.	equal.

1877. Alexander M. Stalker, M.A.
1878. Andrew Seth, M.A.
1879. Alexander Martin, M.A.
1880. { William Fraser, J. D. Robertson, M.A. } equal.
1881. James Seth, M.A.
1882. W. L. Carrie, M.A.

II.—GRAY PRIZES.

The Gray Prize Essay Fund was instituted in 1860, in terms of the will of Simon Gray, Esq., of Mornington Crescent, London. It is under the management of Five Trustees, of whom W. Ritchie, D.D. of Dunse is the Secretary.

The Trustees of Gray's Prize Essay Fund offered in 1881-82 a prize of £20 for the best Essay, and £10 for the second best on "The reflex influence of Christian Missions at home and abroad, in promoting the spiritual life of individuals and churches that prosecute them," but no award was made.

The Trustees offer for 1882-3 a prize of £20 for the best Essay, and prize of £10 for the second best on "*The power of Athens in Ancient Greece—the means of its growth, and the causes of its decline.*" They also offer a prize of £20 for the best Essay, and a prize of £10 for the second best, on "*The Supremacy of Conscience in Man's Moral Nature.*" The Competitors must be Students of the Edinburgh University, who at the commencement of the Session (1881-1882) were not of more than three years' standing, or entering then on the fourth session, from their first matriculation in a University Curriculum. Each Essay, which must not exceed what may be read in two hours, must have a motto prefixed, also a sealed envelope, bearing the motto and enclosing the name and address of the Author, and be forwarded to the Secretary on or before the 1st September next. The Trustees will announce the Award in the beginning of November, but if none of the Essays submitted be judged of sufficient merit, they reserve to themselves liberty to decline an Award of the Prizes, and to offer the sums for future competition. The successful Essays will be retained as the property of the Trustees.

III.—NEIL ARNOTT PRIZE FOR EXPERIMENTAL PHYSICS.

This Prize consists of the annual proceeds of a sum of £1000 presented to the University by Dr Neil Arnott of London. It is awarded o the Candidate who shall pass with the greatest distinction the Ordinary Examination in Natural Philosophy for the Degree of M.A. Candidates must have been Medical Students of this University during either a summer or a winter session; and the successful candidate must continue a medical student at this University during the next Winter

Session, failing which, the prize is to be forfeited and assigned to the competitor next in merit. No student can appear for examination after the completion of his third *annus medicus*; no candidate shall be allowed to offer himself more than once.

In the event of a competitor, qualified as above, not coming forward, the prize will be awarded to a Candidate for a Degree in Arts who shall pass with most distinction the ordinary examination in Natural Philosophy. The next award will be made in October 1883. (*See* Deed of Foundation at p. 274 of CALENDAR for 1870-71.)

1869. Robert M. Gunn.
1870. Thomas D. Wilson.
1871. Alfred Daniel.
1872. J. A. Paton.
1873. James Crabb.
1874. David Grant. George Ogilvie. } equal.
1875. William Raitt.
1876. William Thomson.
1877. Arch. L. Macleish, M.A.
1878. A. Thomson.
,, Walter O. Walker.
1879. W. L. Goodwin.
1880. W. F. Grant. David Smart. } equal.
1881. J. T. Morrison.

IV.—DR MUIR'S PRIZES IN SANSKRIT AND COMPARATIVE PHILOLOGY.

At the end of the Winter Session 1882-83, two prizes of £10 and £5 respectively, will be offered for Competition to students who have attended one of the Sanskrit Classes.

The highest prize will be awarded to the best Student of the Senior, and the lower prize to the best Student of the Junior Class.

No distribution of prizes will take place if the Competitors fail to show a satisfactory knowledge of the subjects taught in the Sanskrit Classes, and the right to award both or either of the prizes is reserved for the decision of the Professor.

The subjects of examination for the highest prize will be—(1.) The V.-VI. Books of the Raghuvaṅśa. (2.) The Meghadūta. (3.) The III. Book of the Law-Book of Manu. (4.) Translation from English into Sanskrit. (5.) Questions in Grammar and Literature.

V.—DR MUIR'S PRIZE FOR GRADUATION IN PHILOLOGY.

In 1872-3 Dr Muir offered a prize of £100 to the most distinguished Candidate who should first take the Degree of D.Sc. in the department of Sanskrit and Comparative Philology. The prize, however, although open for five years, not having been taken by the end of the Session 1877-8, it has been renewed for another five years. For subjects, *see* under Graduation in Science, Section E.

VI.—SCOTT AND DUNBAR PRIZE.

Founded in 1872 by the Rev. Hew Scott, D.D., of Anstruther Wester for encouraging the study of the Greek Language in the Greek

Class in the University of Edinburgh—and to be awarded to "the most deserving and learned student in the Greek Classes"—will be awarded at the end of session 1882-83, as may be directed by the Principal and the Professors of Divinity, Greek, and Humanity. *See* Deed of Foundation at p. 331 of CALENDAR 1873-74.

1877. Samuel Gibson.
1878. W. R. Hardie.
1879. R. J. Mackay.
1880. George Brown.
1881. Andrew H. Hutt.
1882. D. Tod.

VII.—THE COUSIN PRIZE.

This Prize, founded in connection with the Class of Fine Art through a bequest by the late David Cousin, Esq., is of the annual value of about £18, and is awarded at the close of each session for proficiency in Class Essays set from time to time by the Professor.

1882. David J. Vallance.

III.—SCHOLARSHIPS.

I.—PITT CLUB CLASSICAL SCHOLARSHIP.

The Pitt Club Scholarship consists of the annual proceeds of a sum of £1500, tenable for not more than four years. It is under the management of the Senatus Academicus. By ordinance No. 17 of the Scottish Universities' Commissioners it is open for competition to all who have passed regularly through the Course in Arts in the University, and have been admitted to the Degree of M.A. in Edinburgh, at any time within four years before the competition takes place. The subjects embraced in the examination are CLASSICS and ENGLISH LITERATURE.

1862. Thomas Gray, M.A.
1866. Archibald Brown, M.A.
1870. Thomas Raleigh, M.A.
1872. Thomas Kirkup, M.A.
1873. Robert Clark, M.A.
1875. D. G. Ritchie, M.A.
1880. *Stewart H. Capper, M.A.*

II.—MACKENZIE CLASSICAL SCHOLARSHIP.

This Scholarship was founded in 1862, by James Mackenzie, Esq., W.S., and is of the annual value of about £120, tenable for not more than four years. It is under the management of the Senatus Academicus. By ordinance No. 90 of the Scottish Universities' Commissioners, it is open for competition to all Graduates in Arts in the

University of Edinburgh of not more than three years' standing at the time of the competition. Candidates are examined in CLASSICAL LITERATURE and in ENGLISH LITERATURE, and the Examination is conducted by three or more Examiners selected by the Senatus from their own body. It cannot be held along with any other Scholarship, Fellowship, or Bursary, of any Scottish University. The Examinations will include—1. Translations from Latin and Greek authors; 2. Composition in Latin and Greek Prose; 3. Latin and Greek Literature, and History; 4. English Essay-Writing; 5. History of English Literature.

1863. William Millar Nicolson, M.A.
1867. Thomas Stewart Omond, M.A.
1871. Thomas Raleigh, M.A.
1875. William Peterson, M.A.
1880. *W. R. Hardie, M.A.*

III.—BAXTER MATHEMATICAL SCHOLARSHIP.

This Scholarship was founded by Sir David Baxter, Bart., of Kilmaron, in 1863. It consists of one-half of the annual proceeds of a sum of £3200, tenable for not more than four years. By the terms of the Deed of Foundation (given in the CALENDAR for 1864-5, p. 171) it is to be awarded for proficiency in the department of Mathematics, particularly in that branch of it which includes mechanical and physical science. Competitors must be Graduates in Arts of the University of Edinburgh, of not more than four years' standing at the time of the competition, who have taken Honours in the department of Mathematics.

1864. John Macbeth, M.A.
1866. James A. Blaikie, M.A.
1870. R. K. Galloway, M.A.
1875. John M'Diarmid, M.A.
1876. Hector W. G. Mackenzie, M.A.
1877. Henry C. Robson, M.A.
1880. G. W. Küchler, M.A.
1881. *Vacant.*

IV.—BAXTER PHILOSOPHICAL SCHOLARSHIP.

This Scholarship was founded by Sir David Baxter, Bart., of Kilmaron, in 1863. It consists of one-half of the annual proceeds of a sum of £3200, tenable for not more than four years. By the terms of the Deed of Foundation (given in the CALENDAR for 1864-5, p. 171), it is to be awarded for proficiency in the Department of Mental Philosophy. Competitors must be Graduates of Arts in the University of Edinburgh, of not more than four years' standing at the time of the competition, who have taken Honours in the department of Mental Philosophy. The subjects of examination are Logic, Metaphysics, and Moral Philosophy.

1864. John M. Robertson, M.A.
1868. George Forbes, M.A.,

1870. Charles B. Bright Maclaren, M.A.
1872. Donald Ross, M.A.
1874. Hugh John Edward Fraser, M.A.
1878. *Alexander M. Stalker, M.A.*

V.-VII.—JOHN EDWARD BAXTER SCHOLARSHIPS.

These Scholarships were founded in 1876, and are three in number, each consisting of the annual proceeds of a sum of £2500, tenable for three years. They are in the Departments of Mathematics, Classical Literature, and Mental Philosophy. The Scholarship in Mathematics will be competed for in December 1882.

1876. Hector W. G. Mackenzie, *M.A.* (Mathematics).
1877. Robert L. Orr, M.A., (Classics).
1878. Andrew Seth, M.A. (Philosophy).
1879. Wm. Welsh, M.A. (Mathematics).
1880. Robert J. Mackay M.A. (Classics).
1881. *James Seth, M.A.* (Philosophy).

VIII.—DRUMMOND MATHEMATICAL SCHOLARSHIP.

This Scholarship was founded in 1865 by Miss Elizabeth Drummond, in memory of her brother, Captain Drummond, R.E., Under Secretary for Ireland. It consists of the annual proceeds of a sum of £2650, and is tenable for three years. By the Deed of Foundation (given at p. 198 of CALENDAR for 1865-6), it is open to Graduates in Arts of not more than three years' standing, who shall have graduated with Honours in the Department of Mathematics. It is not to be held with any other Bursary or Scholarship, and the holder is recommended to travel for the purpose of inspecting, in this and other countries, remarkable engineering and architectural structures, to extend his knowledge of the practical application of Mathematical principles; and, if required by the Senatus Academicus, to deliver reports on the principal structures examined by him, and the Mathematical principles exemplified thereby; which reports the Senatus may cause to be publicly read in the University or elsewhere in Edinburgh.

1868. Julius Wood Muir, M.A.
1871. David H. Marshall, M.A.
1875. P. R. Scott Lang, M.A.
1878. H. W. G. Mackenzie, M.A.
1881. *William Welsh, M.A.*

IX.—BRUCE OF GRANGEHILL AND FALKLAND'S CLASSICAL SCHOLARSHIP.

This Scholarship was founded in 1865 by Mrs Tyndall Bruce of Falkland, and is of the annual value of £100, tenable for three years, during two of which the studies of the Scholar must be prosecuted in the University of

Edinburgh, but in the third year they may be prosecuted in an English or Foreign University. By the terms of the Deed of Foundation (given at p. 205 of the CALENDAR for 1866-7), it is open to Students who have passed their Examinations for the Degree of Master of Arts, with Honours, and is conferred upon the most distinguished of these in the year and department in which it is open. The Scholarship cannot be conferred upon any one whose age exceeds twenty-three years. It cannot be held with any other Scholarship or Fellowship of a Scottish University, or with any situation yielding an income of £100 per annum.

1866. James C. Bathgate, M.A.
1867. Peter Peterson, M.A.
1870. Thomas Walker, M.A.
1873. Charles William Imrie, M.A.
1876. R. Johnstone Cownie, M.A.
1879. J. C. Lambert, M.A.
1882. *George Macdonald, M.A.*

X.—BRUCE OF GRANGEHILL AND FALKLAND'S SCHOLARSHIP IN MENTAL PHILOSOPHY.

This Scholarship was founded in 1865 by Mrs Tyndall Bruce of Falkland, and is of the value of £100. It is tenable for the same period, and under the same conditions as the preceding. The subjects of examination are Logic, Metaphysics, and Moral Philosophy.

1866. John Rae, M.A.
1868. Alexander Murray Dunlop, M.A.
1871. Robert Adamson, M.A.
1874. David Morrison Ross, M.A.
1877. John Porteous, M.A.
1880. Alexander Martin, M.A.

XI.—BRUCE OF GRANGEHILL AND FALKLAND'S MATHEMATICAL SCHOLARSHIP.

This Scholarship was founded in 1865 by Mrs Tyndall Bruce of Falkland, and is of the value of £100. It is tenable for the same period, and under the same conditions as the preceding. The subjects of examination are Mathematics and Natural Philosophy.

1866. James Reoch, M.A.
1869. David H. Marshall, M.A.
1872. P. R. Scott Lang, M.A.
1875. R. A. Lundie, M.A.
1878. D. Traill, M.A.
1881. *F. W. Stewart, M.A.*

XII.-XIII.—GRAY SCHOLARSHIPS.

These two Scholarships founded by Mr Gray of Baad Park in 1864, each consist of the annual proceeds of a sum of £1000, tenable for a period not exceeding two years. All candidates must pass the Examination for the Degree of Master of Arts. In making appointments the

Senatus are directed to prefer in the first place candidates of the name of Gray; secondly, such as are born in the parishes of Midcalder or Kirknewton. Failing well qualified Candidates, who fulfil these conditions, the Scholarships are awarded to the most distinguished candidates for the Degree in Arts, alternating amongst the Honours departments.

The holders must proceed to study in one of the Faculties of Theology, Law, or Medicine.

1872. Hugh John Edward Fraser, M.A.
1872. J. Allan Gray, M.A.
1875. Archd. L. MacLeish, M.A.
1876. R. Burdon Haldane, M.A.
1877. Henry C. Robson, M.A.
1878. W. O. Walker, M.A.
1879. Mungo Watson, M.A.
1880. J. D. Robertson, M.A.
1881. Lothian Gray, M.A.
1882. *J. W. Oman*, M.A.
,, *Robert Allardice*, M.A. (for one year).

XIV.—GILCHRIST SCHOLARSHIPS.

These Scholarships were founded in 1865 by the Trustees of the late Dr Gilchrist; they are three in number, each of the annual value of £100, and are open to natives of India who have passed competitive examinations at the Presidential Colleges of India. They are attached to the Medical, Law, and Literary Classes in the University.

XV.-XVII.—MISSES BAXTER OF BALGAVIES' SCHOLARSHIPS.

These Scholarships were instituted in 1868 and 1878 by Miss Mary Baxter of Balgavie. They are three in number, two of the annual value of £40, the third of £20. They are in the gift of the Directors of the High School of Dundee. They are open for competition to all pupils who shall have finished their course within one year at the High School of Dundee. The examination is held at Dundee by examiners appointed by the Directors, and the subjects are Geometry, Algebra, Trigonometry, and Mechanical Drawing. They are tenable for one year certain, and for a second if a favourable certificate is sent to the Directors by the Senatus Academicus. The Classes to be attended the first year are Mathematics, Natural Philosophy, and Engineering; the second year Chemistry, Engineering, and the second course of Natural Philosophy. In the event of a degree in Engineering being established, the holder of any of these Scholarships taking that degree at the end of his two years' course, is entitled to a gratuity of £10, 10s.

These Scholarships are not to be held with any other Scholarship, Fellowship, or appointment yielding £50 per annum. *See* Deeds of

Foundation, at page 255 of the CALENDAR for 1869-70, at p. 372 of CALENDAR for 1878-79, and at p. of the present CALENDAR.

1871. James A. Ewing.
1874. David Angus.
1875. David Smart.
1876. George Deuchars.
1878. Richard P. Fleming. John Lundie.
1879. Peter C. Cowan.
1881. *David R. Urquhart.*

XVIII.-XIX.—FETTES EXHIBITIONS.

These Exhibitions are each of the annual value of £60. They are tenable for four years, open annually for competition, one among the Foundationers alone ; and the other among the Foundationers and such of the other pupils as have attended the Fettes College regularly for not less than four years. The first appointments were made in 1875.

1875. W. G. Macpherson. J. P. Johnstone.
1876. C. J. Gibson.
1877. G. L. H. Milne.
1878. E. D. Kirby. C. Reddies.
1879. Wm. Wallace.
1880. G. G. Smith.
1881. *W. F. Menzies.* *L. G. Fischer.*

XX.-XXI.—RHIND SCHOLARSHIPS.

These Scholarships were in accordance with the will of the late A. H. Rhind, Esq., of Sibster, founded by his trustees on the reversion of his estate. They are two in number, each consisting of the annual proceeds of a sum of £2400, tenable for two years, with the possibility of a prolongation of the tenure at the end of that period. The first is in the Department of Classical Literature, the second in that of Philosophy. Candidates who are Undergraduates must have completed at least three Sessions in the regular Curriculum in Arts, and have obtained at least two Departmental Certificates; and Candidates who are Graduates must have received the Degree of Master of Arts in this University within two years of the date of the Competition. The successful Candidates may be required to undertake duties connected with the teaching of the University, or otherwise assist in some department of its operations in terms of the Trust Deed. The first award was made in April 1876 till 1879. *See* Deed of Foundation at p. 322 of CALENDAR for 1874-75.

1876. R. W. Barbour, M.A. (Philosophical). George B. Gardiner, M.A. (Classical).
1879. Alex. Martin, (Philosophical). W. R. Hardie, (Classical).
1880. *John D. Robertson, M.A.* (Philosophy).
1881. *J. G. Tait, M.A.* (Classical).

XXII.—SCHOLARSHIPS IN MUSIC.

By the will of Signor Theophile Bucher, who died in 1871, his trustees are enjoined (on the death of an Annuitant), to pay over the

residue of his estate, amounting to about £3000, to the Senatus and Curators of the University for the purpose of founding one or more Scholarships of music to be held by any young men born in Scotland, who may shew a natural talent for music and wish to make it their profession, for the purpose of improving their education, and enabling them to prosecute the study of the science and art of music in Italy, Germany, and France. When the funds become available, Regulations for the Scholarships will be framed by the Curators and Senatus.

XXIII.—THE CHARLES MACLAREN SCHOLARSHIP.

This Scholarship was founded in 1871 by the Trustees of Mrs Maclaren, in memory of Charles Maclaren, Esq., the eminent geologist. It consists of the proceeds of a capital sum of £2,600. It is for the encouragement of the study of Mathematics and Natural Philosophy, and is open to all graduates in Arts of not more than three years' standing at the time of the Competition (and under 30 years of age) who shall have taken honours in Mathematics. It is tenable for three years. The successful competitors are to spend a few months in travelling and in examining remarkable Engineering and Architectural Structures, and to report to the Senatus, which report the Senatus may cause to be publicly read in the University. The Deed of Foundation is given at p. 324 of CALENDAR for 1873-74. The next competition may be in December 1884.

1875. Alexander Macfarlane, M.A.
1878. H. C. Robson, M.A.
1881. *G. W. Küchler, M.A.*

XXIV.—NEIL ARNOTT SCHOLARSHIP FOR EXPERIMENTAL PHYSICS.

This Scholarship was founded in 1874, and is awarded annually to the most distinguished Student in the Physical Laboratory of the University. It consists of the annual proceeds of a sum about £1000.

The recipient must, during the ensuing Summer and Winter Sessions assist the Professor of Natural Philosophy in the Laboratory. Failing a Student deemed by the Professor worthy of the Scholarship, it may be given to the Candidate for a Degree in Arts who has undergone the Examination in Natural Philosophy with most distinction. *See* Deed of Foundation, at p. 320 of CALENDAR for 1875-76.

1875. Alexander Macfarlane, M.A.
1876. C. Michie Smith, B.Sc.
1877. Cargill G. Knott, B.Sc.
1878. Edward B. Kirk.
1879. Patrick M. Playfair, M.A.
1880. G. N. Stewart.
1881. J. T. Morrison.
1882. *Cosmo Innes Burton.*

XXV.-XXVII.—FERGUSON SCHOLARSHIPS.

The examination of Candidates for three of these Scholarships will be held in Glasgow, on Tuesday, 3d October next, and following day. One of the Scholarships will be awarded for the greatest proficiency in Classics; one for the greatest proficiency in Mathematics, including Natural Philosophy; and one for the greatest proficiency in Mental Philosophy, including Logic, Metaphysics, and Ethics.

Subjects for Examination:—

CLASSICAL SCHOLARSHIP.

Latin—
- Terence, "Eunuchus" and "Phormio."
- Lucretius, "De Rerum Natura," Books I. and III.
- Virgil, "Æneid," Books I.-VI.
- Cicero, "Philippics."
- Tacitus, "Annals," Books I.-IV.
- Plinius, "Epistolæ," Books VI. and X.
- Latin Prose Composition.

Greek—
- Homer, "Odyssey," Books XIII.-XXIV.
- Pindar, "Pythian Odes."
- Æschylus, "Agamemnon," "Choëphori," "Eumenides."
- Thucydides, Books II., III.
- Plato, "Republic," Books I.-III.
- Demosthenes, "Philippics."
- Greek Prose Composition.

QUESTIONS.—(*a.*) On Greek and Latin Syntax and Etymology.
(*b.*) On Greek and Roman History and Literature.

MATHEMATICAL SCHOLARSHIP.

Mathematics—Euclid's Elements. Modern Geometry.
Algebra, including Determinants and Theory of Equations.
Trigonometry, Plane and Spherical.
Analytical Geometry, in Two and Three Dimensions.
Differential and Integral Calculus, and Differential Equations.

Natural Philosophy—Abstract Dynamics (commonly called Mechanics) including Kinematics, and Statics, and Kinetics of Solids and Fluids.
Experimental Physics, including all the ordinary subjects treated in Lectures on Natural Philosophy.

PHILOSOPHICAL SCHOLARSHIP.

Logic—Province and History of Logic. Logical forms of Notions, of Judgments, and of Inferences. Fallacies and their Causes. Evidence. Authority. Science and its Methods. Recent Discussions affecting Logic.

Metaphysics—Psychology (Physiological and Metaphysical) and Ontology. Nature, Origin, and Limits of Man's Knowledge of Self, the Material World, and God. History and Critical Analysis of Ancient and Modern Metaphysical Systems.

Moral Philosophy—Psychology and Metaphysics of Ethics. The Moral Faculty, Motive Powers, and Will. Moral Government

of the Universe, and cognate Questions. Applied Ethics, including the relations of Ethics to Law and Politics. History and Critical Analysis of Ancient and Modern Ethical Theories.

The Competition will be open to all persons who have passed the last of the Examinations required for the Degree of Master of Arts in one of the Universities of Scotland (whether taking the degree at the same time or not) within two years immediately preceding, and who have not already gained one of these Scholarships or competed more than once previously for any of them.

The Examinations will be conducted in writing, and the Scholarships awarded on the report of the Examiners as to the merit of the Candidates, but the minimum of 600 out of 1000 marks must be reached in order to entitle to a Scholarship.

The Scholarships, of £80 each per annum, are tenable for two years, subject to fulfilment of the following Rule of the Trustees:—

"Persons gaining the Scholarships will, during the tenure thereof, be expected to prosecute studies in furtherance of the higher learning; and those who have not graduated shall be required to do so before the last payment is made. Any case of conduct unbecoming a scholar and a gentleman, shall incur forfeiture of the Scholarship, of which the Trustees shall be sole judges."

Certificates will be granted to such of the unsuccessful Competitors as, in the opinion of the Examiners, shall have taken a distinguished position in the Examinations.

Candidates are requested to give in their names, personally or by letter, to the Secretary, at the Office of The Ferguson Bequest Fund, 94 Bath Street, Glasgow, not later than 1st September 1882, and due intimation will be sent to those enrolled, as to the place and hours of Examination.

PRESENT HOLDERS OF THE SCHOLARSHIPS, 1880-81.

1880. *Classics*—James Adam, M.A.
,, *Mathematics*—George Wm. Küchler, M.A., *Univ. of Edin.*
,, *Mental Philosophy*—William Merry Macphail, M.A., *Univ. of Edin.*
1881. *Classics*—William Ross Hardie, M.A., *Univ. of Edin.*
,, *Mathematics*—William Cassie, M.A.
,, *Mental Philosophy*—Alexander Martin, M.A., *Univ. of Edin.*

XXVIII.-XXXIV.—VANS DUNLOP SCHOLARSHIPS.

SIX VANS DUNLOP SCHOLARSHIPS, each of the annual value of about £100, and tenable for three years, are now founded in the Faculty of Arts. By the Deed of Foundation these are appropriated to the seven following subjects:—1. English Literature and Poetry; 2. Classical Learning—Latin and Greek; 3. Engineering and the Mechanical and Useful Arts; 4. Commercial and Political Economy

and Mercantile Law; 5. Logic and Metaphysics; 6. Natural Philosophy; 7. History. In terms of the Trust-Disposition, they are given only for "distinguished proficiency" in the various subjects of competition, as determined by the Examiners and the Senatus Academicus.

Not more than one of the Vans Dunlop Scholarships can be held by the same person, and Vans Dunlop Scholars cannot hold any other Scholarship or Bursary in the University of Edinburgh.

The following are the General Regulations for the Examinations :—

I.—English Literature and Poetry.

Candidates are subjected to an Examination testing—(1.) Knowledge of the History of English Literature generally, and more particularly through a prescribed period; (2.) Acquaintance with certain books, chiefly of English Poetry, prescribed for special reading; (3.) Ability in English Composition, in the form of an Essay, written in the Examination Room, on some subject of literary criticism.

The Competition is open to all Matriculated Students in the second, the third, or the fourth year of their Matriculation, who have given regular attendance in the Class of Rhetoric and English Literature.

The Professor of Rhetoric and English Literature, and an Examiner appointed by the Senatus, are the Examiners.

1882. *William Bell.*

,, *Proxime accesserunt,* { *J. M. Barrie.* / *R. M. Osborne.*

II.—Classical Learning—Latin and Greek.

1. *Latin*—The Examination will test :—
   - (*a.*) Knowledge of Latin books and special subjects previously prescribed.
   - (*b.*) Power of Latin Composition, and of translating from Latin authors not previously prescribed.
2. *Greek.*—(*a.*) Knowledge of Greek books previously prescribed.
   - (*b.*) Power of Greek Composition, and of translating from Greek authors not prescribed.
   - (*c.*) Knowledge of Greek History and Literature.

The Competition is open to Matriculated Students in their second, third, or fourth Session who have completed attendance in the Latin and Greek Classes necessary for graduation in Arts.

Any one who in the previous April may have completed his course for graduation in Arts in three Sessions may take part in the Competition, although not actually a Student in the Session during which the Examination takes place.

The Professors of Humanity and Greek are the Examiners.

1881. *John Burnet.*

,, *Proxime accessit, J. H. Smith.*

III.- Engineering and Mechanical and Useful Arts.

The Examination is similar to that for the Second B.Sc. Examination for the degree in Engineering, with the addition of questions on prescribed books treating of Engineering and Mechanical and useful Arts.

The Competition is open to all Matriculated Students who have been in regular attendance on the Class of Engineering for at least two Winter Sessions, and who have not been Students of the University for more than four years.

The Examiners are the Professors of Engineering and Natural Philosophy.

1882. *P. C. Cowan.*

IV.—Commercial and Political Economy and Mercantile Law.

(*a.*) Candidates are subject to an Examination testing their knowledge (1.) of Commercial and Political Economy, and (2.) of Mercantile Law—two papers on the former and one on the latter.

(*b.*) The Competition is open to all who have been Matriculated Students for not less than two years, who have not discontinued attendance at the University for more than one year, who have regularly attended the Class of Commercial and Political Economy and Mercantile Law, and who at the time of the Competition are Matriculated Students.

(*c.*) The Professor of Political Economy and an Examiner nominated by the Senatus are the Examiners.

1882. *J. R. N. Macphail.*

V.—Logic and Metaphysics.

The Examination will test knowledge of (*a.*) Psychology, (*b.*) Logic, (*c.*) Metaphysics and the History of Philosophy. It will include the subjects embraced in the Lectures on each of these branches; also prescribed Reading and Studies of special subjects.

The Competition is open to all who have been Matriculated Students for not less than two nor more than six years, who have not discontinued attendance at the University for more than one year, who have regularly attended the Junior and Advanced Classes of Logic and Metaphysics, and who at the time of the Competition are Matriculated Students.

The Professor of Logic and Metaphysics and the Professor of Moral Philosophy are the Examiners.

1882. *James Weir, M.A.*
Proxime accessit, John W. Oman, M.A.

VI.—Natural Philosophy.

The Examination will test the knowledge of the Candidates in Experimental Physics and Applied Mathematics. The Competition is restricted to Matriculated Students who have passed at least two and not more than six Sessions at the University, and who have attended the classes of Natural Philosophy.

The Professors of Natural Philosophy and Mathematics are the Examiners.

1882. *J. T. Morrison.*

VII.—History.

The Competition is open to all Matriculated Students who have regularly attended classes in the University for not less than two and not more than six years, who have also attended one or more courses of Lectures either by the Professor of History or by the Professor of Ecclesiastical History, and who have not discontinued attendance at the University for more than one year immediately preceding the period of Competition.

The Examination will comprise the History of Greece or that of Rome, the History of one modern Continental nation, the History of England, and the History of Scotland. The precise subjects of Examination will be published at least one year before the date of Competition.

The Scholarship will be awarded by competitive examination. The Examiners are the Professor of History, the Professor of Ecclesiastical History, and either the Professor of Humanity or the Professor of Greek.

The conditions of tenure are the same as those applicable to the other Vans Dunlop Scholarships in Arts.

No one is considered a "Matriculated Student" in the Competitions for Vans Dunlop Scholarships, unless he has regularly attended in at least one class in the University of Edinburgh during each Winter Session in which he claims to have been a Matriculated Student.

Each Scholarship is tenable on condition that the Scholar submits annually to the University evidence that he is prosecuting his studies, or his professional work, in a manner satisfactory to the Senatus. The Evidence may consist of—(1.) Certificates of attendance on Lectures or Laboratories in this or some other University; or (2.) Certificate of having acted as Assistant to a Professor in this or some other University; or (3.) A written Report of work done by the Scholar during the year, together with a Thesis composed by himself on a subject connected with that work.

XXXV.—SKIRVING SCHOLARSHIP FOR MORAL PHILOSOPHY.

This scholarship is to be founded in accordance with the Will of the late David Skirving, of No. 13 Westbourne Park, London. It will be

of the annual value of about £50, and tenable for three years. *See* Deed of Foundation at p. 350 of CALENDAR for 1876-77.

XXXVI.-XXXIX.—LANG SCHOLARSHIPS.

This is a Bequest by the late John Lang, Esq. of Warren Park, Ayrshire, with the object of founding four Scholarships, to be called the "Lang Scholarships," one in Natural Philosophy, one in Mathematics, one in Chemistry, and one in Botany. The capital sum will be payable on the death of the survivor of two liferenters.

XL.—DOWNIE SCHOLARSHIP.

The late Miss Downie of Appin having founded a Scholarship of £100 per annum, to be held for three years, at either Edinburgh or Glasgow University. The following are the regulations :—

1. The candidate must be a native of the parish of Appin.
2. He must not be under 15 years of age, *i.e.*, he must have completed his 15th year on or before the day fixed for names to be given in ; and
3. He must be of well-known good moral character, of promising capacity, and have chosen a learned profession, and he must state in his application which learned profession he has chosen.

Application may be made to Robert B. Blyth, W.S., 16 South Charlotte Street, Edinburgh.

XLI.—STEVEN SCHOLARSHIP IN AGRICULTURE.

This Scholarship was founded in 1882 by the Misses Steven of Bellahouston in memory of their brother Moses Steven, Esq. It consists of the proceeds of £2000 awarded annually, and the first award to be made at end of Session 1882-3.

The Scholar is required to visit the annual exhibitions of the four leading agricultural societies, or such as the Professor of Agriculture shall appoint.

The Royal Agricultural Society of England.
The Bath and West of England Agricultural Society,
The Highland and Agricultural Society of Scotland.
Royal Agricultural Society of Ireland.

IV.—FELLOWSHIPS.

I.—GUTHRIE FELLOWSHIP IN CLASSICAL LITERATURE.

This fellowship was founded in 1866 by James Guthrie, Esq., London. It consists of the annual proceeds of a sum for £2500, tenable for four

years. By the terms of the Deed of Foundation (given at p. 210 of the CALENDAR for 1866-7) it is for proficiency in Classical Literature. It is tenable by Graduates in Arts of the University who may have taken their Degree since the period of the last competition. Students, however, who have passed their examination for a Degree since the last competition, but deferred graduating for the sake of obtaining Honours, are also eligible. It cannot be held along with any other Fellowship or Scholarship in any Scottish University in the same department.

1866. George Watson, M.A.
1870. John Marshall, M.A.
1874. Robert Clark, M.A.
1878. *J. W. Mackail, M.A.*

II.—HAMILTON FELLOWSHIP IN MENTAL PHILOSOPHY.

This Fellowship was founded in 1866 by the Subscribers to the fund for a Memorial to the late Professor Sir William Hamilton, and by the Association for the better endowment of the University. It consists of the annual proceeds of a sum of £2600, tenable for three years. By the Deed of Foundation (given at p. 213 of CALENDAR for 1866-67), it is open to all Graduates in Arts in the University of Edinburgh of not more than three years' standing at the time of the competition. It cannot be held along with any other Scholarship or Fellowship in a Scottish University. The subjects of examination are Logic, Metaphysics, Moral Philosophy, and the History of Philosophy.

1867. Thomas M. Lindsay, M.A.
1869. Donald Mackinnon, M.A.
1872. Robert Adamson, M.A.
1874. Thomas Shaw, M.A.
1877. W. R. Sorley, M.A.
1878. W. M. Macphail, M.A.
1881. *Alexander Martin, M.A.*

III.—SHAW FELLOWSHIP IN MENTAL PHILOSOPHY.

This fellowship was founded in 1867 by Contributors to a Memorial to Sir James Shaw, Bart., a native of Ayrshire, afterwards Lord Mayor of, and M.P. for London. It consists of the annual proceeds of a sum of £4300, tenable for a period not exceeding five years, and is in the patronage of the Senatus Academicus of the University of Edinburgh. It is designed for the encouragement of the study of Logic, Metaphysics including Psychology, Moral Philosophy, and the History of Philosophy, and is awarded after competitive examination on these subjects. It is open to Graduates in Arts of any of the four Scottish Universities, of not more than five years' standing at the time of the competition, and is tenable for five years. It is not to be held along with any other Fellowship, Scholarship, or Bursary in any Scottish University and it

will not be open to the competition of any person who already holds a Fellowship in any English or Irish University, though the holder of the Shaw Fellowship will not be precluded from afterwards obtaining an English or Irish Fellowship. The first Series of the Shaw Lectures was delivered in 1873 by the Rev. Professor Lindsay, on "William of Occam, and his position in Mediæval Philosophy." The second series, "On the Philosophy of Kant," was delivered by Professor Adamson in December 1878. The next competition for the Fellowship may be held in December 1883. (Deed of Foundation, p. 237 of CALENDAR for 1868-9.)

1868. Thomas M. Lindsay, M.A.
1873. Robert Adamson, M.A.
1878. *W. R. Sorley, M.A.*

IV.—FETTES FELLOWSHIPS.

These Fellowships to be instituted by the Fettes Trustees, are two in number, each of the annual value of £100. They are to be held by Graduates in Arts of the University, who have been educated for four years at least at the Fettes College.

FELLOWSHIP, SCHOLARSHIPS, UNIVERSITY PRIZES, AND BURSARIES, OPEN FOR COMPETITION IN THE FACULTY OF ARTS IN THE YEAR ENDING 30TH APRIL 1883.

FACULTY OF ARTS.

Fellowship.

Guthrie Classical Fellowship, value about £100, tenable for not more than Four Years.

Scholarships.

1. *Rhind Classical Scholarship*, value about £85 a-year, tenable for not more than Three Years.

2. *John Edward Baxter Scholarship in Mathematics*, value about £90 a-year, tenable for not more than Three Years.*

3. *Baxter Mathematical Scholarship*, value about £56 a-year, tenable for not more than Four Years.

4. *Baxter Philosophical Scholarship*, value about £56, tenable for Four Years.

5. *Rhind Scholarship in Philosophy and English Literature*, value about £85 a-year, tenable for not more than Three Years. Open to Students who have attended the University for at least three University Sessions.

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* For Deed of Foundation, *see* Calendar of 1877-78, p. 361.

Candidates for the foregoing Fellowship and Scholarships must give their names and addresses to the *Dean of the Faculty of Arts* before 1st December, and the examinations will commence at nine o'clock on the *third Saturday of December*, 1882.

6. *Bruce of Grangehill and Falkland's Philosophical Scholarship*, value £100, tenable for not more than three years, to be awarded at graduation in *April* 1883.

7. A *Gray Scholarship* of about £40, for two years, may also be awarded in *April* 1883.

8. *Vans Dunlop Scholarship in Mathematics.* Value about £100, tenable for three years. The competition is restricted to matriculated students who have passed at least two, and not more than six complete sessions at the University of Edinburgh; and who have therein attended at least two of the Mathematical Classes, one of them being the Third or Advanced Class. No student shall be deemed eligible who has discontinued attendance at the University for more than one year. The Professor of Mathematics, and an examiner nominated by the Senatus, are the Examiners. The examination will test the knowledge of the candidates in the pure mathematical subjects for honours in the Department of Mathematics, and in certain special subjects to be prescribed by the Examiners from time to time.

An Examination in Mathematics will be held in April 1883, and will be combined as far as possible with the Examination for Honours in the Department of Mathematics. The special subjects will be Salmon's Conic Sections, the last four chapters; Salmon's Lessons on Higher Algebra, the first fourteen lessons; Salmon's Higher Plane Curves, the first five chapters. These may be held to indicate the scope of the special examinations, but the candidate is recommended to read other books bearing on the subjects.

Vans Dunlop History Scholarship.—The first Competition for this Scholarship will take place on the third Monday, Tuesday, and Wednesday of October 1883.

The subjects prescribed are :—

1. History of the last two centuries of the Roman Republic.
2. History of England with special reference to Parliamentary Government.
3. History of Scotland from the Reformation to the Union.
4. History of the Kingdom of Prussia down to the consolidation of the German Empire.

It is intended that a *Vans Dunlop Scholarship* of £100 a-year, tenable for three years, in Oriental Languages and Comparative Philology, should be offered for competition in 1883, at dates and under regulations which will be afterwards advertised.

The *Shaw Fellowship in Mental Philosophy*, of about £170 annually, for five years, is vacant at Martinmas 1883.

University Prizes in Arts.

1. *Bruce of Grangehill and Falkland's Prize*, of £20, for the most distinguished Student in the Classes of Logic and Metaphysics, in Session 1882-83, to be awarded "on such competition as the Professor may direct, and on his decision, for excellence in the study of Logic and Metaphysics." (See Synopsis of Class of Logic and Metaphysics in Calendar.)

2. *Neil Arnott Prize*, of about £47, for Medical Students who shall pass with greatest distinction the examination in Natural Philosophy for M.A.

3. *Scott and Dunbar Prize*, of about £25, for the "most deserving and learned student in the Greek Classes," awarded at the end of the Session, "as may be directed by the Principal and the Professors of Divinity, Greek, and Humanity."

4. *Cousin Prize in Fine Art*, of about £18, for excellence in the Class of Fine Art (See Synopsis of Class of Fine Art).

Competition Bursaries in Arts.

The Annual Competitive Examinations for Bursaries in Arts will commence on *Saturday, the 21st of October* 1882, at Nine o'clock, in the Library Hall of the University, and will be continued on the following *Monday*, at the same hour.

The names of the successful candidates, and of those distinguished in the competition, will be published in the order of merit.

FOR STUDENTS ENTERING THE FIRST SESSION IN ARTS.

1-3. *Tyndall Bruce Bursary*, of £20 a-year for Three Years; another of £20 a-year for Two Years; a third of £20 a-year for One Year—all open.

4 and 5. *Two Edinburgh University Endowment Association Bursaries*, of £20 a-year each, for Three Years—open.

6. *Blair Bursary* of £10 a-year for Four Years—open.

7 and 8. *Patrick Bursaries.* One of about £60 for two years; and another of about £30 for two years—restricted. *See* p. 331.

9. *Grierson Bursary* of £20 for Four Years—restricted. (*See* p. 334).

[*Preferential Candidates, if any, for the Patrick and Grierson Bursaries must announce their names and addresses and send evidence of their preferential claims to the "Secretary of the Senatus, University, Edinburgh," on or before the 1st of October. If no preferential candidates are then announced, the Grierson Bursary will be included among those open to competition on the 21st October, for all Students then about to enter on their First Session.*]

10. *Sibbald Bursary* of about £30 or three years. Names of Candidates to be sent to Messrs Mackenzie, Innes, & Logan, W.S., 23 Queen Street, before the beginning of October, who will give information.

11. *Thomson Bursary*, of about £25 for two years. Apply to Messrs Traquair, Dickson, & Maclaren, W.S., 11 Hill Street, Edinburgh.

12. *Jamieson Bursary* of about £26, tenable for four years, open to Students from parishes of Crawfordjohn, etc. Application may be made to Messrs Maconochie, Duncan, & Hall, W.S., Hill Street, Edinburgh.

A considerable number of Bursaries provided by County Clubs and others will also be offered for competition on October 21.

The subjects of examination for the above Bursaries are Latin, Elementary Greek, Mathematics, and English Grammar and Composition. The examinations in Latin are held from 9 to 12, and in Greek from 1 to 4, on *Saturday 21st of October;* in Mathematics from 9 to 12, and in English from 1 to 4, on the following *Monday.*

No special books prescribed or announced.

The examinations in Latin and Greek include the papers set at the same time for the Three Sessions' Curriculum, so that candidates for the latter may compete also for the Bursaries; and the examinations in Mathematics in like manner include those for the Entrance Examination in Mathematics.

FOR STUDENTS ENTERING THE SECOND SESSION IN ARTS.

1. *One Tyndall Bruce Bursary*, £35 a-year, tenable for not more than three years—open.

2 and 3. *Two Stewart Bursaries* of £10 a-year each, tenable for not more than three years—open.

The subjects of examination for *Second* Session Bursaries are Latin, Greek, and Mathematics.

No special books prescribed or announced.

FOR STUDENTS ENTERING THE THIRD SESSION IN ARTS.

1. *Horsliehill Scott Bursary*, about £37 a-year, tenable for not more than two years—open.

2. *Macpherson Bursary*, about £45 a-year, restricted to Students who are natives of the Highlands and acquainted with Gaelic, tenable for not more than two years. They must present evidence of Highland birth, and of knowledge of Gaelic, from competent authority.

The subjects of examination for *Third* Session Bursaries are Classics, Mathematics, Logic, and Psychology.

No special books prescribed or announced.

N.B.—The names and addresses of Candidates for First, Second, and Third Session Bursaries must be announced to the "*Secretary of the Senatus, University, Edinburgh,*" not later than Saturday, the 14th of October 1882, and preferential Candidates must give evidence of their preferential claims.

In the Competition for the preceding Bursaries, Students who matriculate and enter the Classes in the Faculty of Arts for the first time in this or any Scottish University, and such only, are considered Students of the *first* session; and in like manner all and only Students who matriculate and enter the Classes of the Faculty for the second and third time respectively, are considered Students in their *second* and *third* sessions respectively.

Town Council Bursaries.—Candidates for Bursaries in the gift of the Town Council, many of which are vacant early in October, are referred to the "*City Clerk, Council Chambers*, Edinburgh," to whom early application should be made.

Heriot, County Club, and Private Bursaries.—For Heriot Bursaries, Candidates are referred to the "*Treasurer of Heriot's Hospital*, 11 Royal Exchange, Edinburgh;" for Bursaries instituted by various County Clubs, to their respective Secretaries. As to Private Bursaries information may be obtained from the Patrons of the Bursaries or their Agents.

The attention of all Bursars in the Faculty of Arts, is particularly called to the following Regulation:—

"Bursars connected with the Faculty of Arts must attend, in the order required by the Dean in name of the Faculty, the Classes necessary for the Degree of Master of Arts, and must present themselves at the Departmental Examinations necessary for that Degree.

"Each Bursar must present a Certificate, signed by the Dean, attesting his regular attendance on the Classes in the Faculty of Arts, on each occasion on which he applies to the Factor for a payment."

Certificates, in terms of this regulation, will be given to Bursars, by the *Dean of the Faculty of Arts*, after the 11th November, and also at the end of the Session in April. In applying to the Dean for the Certificate in November, Bursars must present evidence to him that they have enrolled in their classes; and at the end of the Session they must present evidence to him from their Professors that they have attended with regularity and made progress in their studies. Payments are made by the Factor for the University, "John Cook, Esq., W.S., 61 North Castle Street, Edinburgh," on and after 18th May for the Whitsunday payments, and on and after 14th November for the Martinmas payments, —between 10 and 3 o'clock.

N.B.—*Bursars who do not apply to the Factor for each successive instalment of their bursaries within six months after it has become due, will be regarded as having resigned their bursaries, which will accordingly be then declared vacant.*

II.—FACULTY OF DIVINITY.

I.—BURSARIES.

A.—Presentation Bursaries.

No. of Foundation.	Year of Found.	Name of Founder.	Total Annual Income.	No. of Bursars.	Years.	Annual Allowance to each Bursar	Patrons.
I.	1703	Agnes Nairne.	£3 0 0	1	1	..	Senatus Academicus.
II.	1715	Sir James M'Lurg of Vogrie, sometime Dean of Guild of Edinburgh.	8 6 8	1	4	£8 6 8	Dean of Guild of Edinburgh, and Wm. Brown, Esq., surgeon, alternately
III.	1764	Rev. John Penman, Minister of Bothkennar.	8 0 0	1	4	8 0 0	Little Gilmour of Craigmillar.
IV.	1766	Rev. Robert Alexander, Minister of Girvan.	About 19 0 0	1	4	About 19 0 0	Kirk-Session of Girvan and Presbytery of Ayr.
V.	1838	Robert Blair, D.D., Barton St Andrews, Norfolk	14 8 0	1	4	14 8 0	Governors of George Heriot's Hospital, Principal of the University, Minister of the High Church, & Minister of New Greyfriars' Church.
VI.	1838	Do. Do.	About 23 0 0	1	4	About 23 0 0	The Principal, and Profs. of Hebrew, Divinity, Church History.
VII.	1838	J. Stewart Hepburn of Colquhalzie, Esq.	13 2 6	1	3	13 2 6	Committee of the Presbytery of Edin.
VIII.	1858	Do. Do.	13 2 6	1	3	13 2 6	Do.
IX.	1864	Do. Do.	13 2 6	1	3	13 2 6	Do.

I. In abeyance at present.

II. The *M'Lurg Bursary* is tenable for four years at the Theological Classes. *Bursar*—James Bell Nicoll.

III. The *Penman Bursary*—T. H. Chapman, M.A. (1881). (*Now vacant.*)

IV. This Bursary consists of the interest of £420, lent on heritable security, and of £75, 17s. of accumulated interest. It must be held by a Student from the parish of Girvan, presented by the Session; whom failing, by one within the Presbytery of Ayr, to be appointed by the Presbytery. *Bursar*—Harvey Nichol, M.A.

V. The *Blair Bursary* can be held only by a young man who has been brought up in George Heriot's Hospital, and has become a Student of Divinity in the University of Edinburgh. The amount depends on the rate of dividend payable on the stock in which the foundation money is invested. *Bursar*—Peter B. Gunn.

VI. To be applied for the benefit of a Student of Divinity, whether a graduate or not. *Bursar*—John Heron, M.A.

VII., VIII., and IX. The sums attached to these Bursaries are payable to Divinity Students of the first or second year towards the expense of their education at the University of Edinburgh. Each is tenable for three years. For one bursary Gaelic-speaking students have a preference; for all, Students from the Presbyteries of Weem and Auchterarder. *Bursars*—JAMES MUNRO, 1880; GEORGE HOGG, 1880; P. A. K. MACKENZIE, 1881.

B.—COMPETITION BURSARIES.

No. of Foundation.	Year of Found.	Name of Founder.	Total Annual Income.	No. of Bursars.	For Years.	Annual Allowance to each Bursar.	Patrons.
I.	1646	Buchanan of that Ilk.	£20 16 8	2	3	£10 8 4	Town Council.
II.	1666	William Struthers.	13 17 9⅓	1	3	13 17 9⅓	Do.
III.	1685	Archibald Leighton.	7 10 0	1	3	7 10 0	Do.
IV.	1687	Andrew Ramsay and Sir Andw. Ramsay of Abbotshall.	16 13 4	1	3	16 13 4	Do.
V.	1695	King William III.	50 0 0 About	2	2	25 0 0 About	Lords of the Treasury
VI.	1867	Miss Mary Ettles of Inverness.	£120 0 0	3	3	£40 0 0	Senatus.
VII.	1873	Grierson of Ogscastle's Trustees.	80 0 0	3	1	26 13 4	Senatus.
VIII.	1878	Mrs Isabella Webster.	140 0 0	3	3	Two of about £52,10s & one of about £35.	Senatus
IX.	1878	Dr Andrew Thomson	100 0 0	4	4	25 0 0 Interest of	Trus. of Dr Thomson.
X.	1879	Mrs Barbara Mylne	30 0 0	1	3	750 0 0	Moderator, Procurator, and Principal Clk. of Gen. Assem.

1. By Ordinance, No. 79, of the Scottish Universities' Commissioners, and subsequent Order of her Majesty in Council 1868, each of the Buchanan Bursaries is open for competition to all Masters of Arts of any of the Universities of Scotland, or to Students who have passed the necessary Examinations for the Degree of M.A., but have deferred their Graduation with a view to Honours, entering on their first or second Session in the Faculty of Divinity in the University of Edinburgh. No person is admissible to competition who has for more than one Session been a Student in the Faculty of Divinity in any of the Scottish Universities. Each Bursar holds his Bursary for three years, subject to this condition, that he shall, during that period, give regular attendance, as a Student of Theology, in the University. If it appears to the Senatus Academicus desirable, for the purpose of distributing the benefits of competitive Bursaries in Theology among Students of different years, it is lawful, for that purpose only, to appoint a Student for a shorter period. No person can hold the Bursary along with any other Bursary, Fellowship, or Scholarship in any Scottish University. *Bursars*—JOHN DOBIE, M.A., 1879; JOHN DINWIDDIE, M.A., 1880.

II. By Ordinance, No. 80, of the Universities' Commissioners, and subsequent Order in Council, the regulations for this Bursary are the same as those for the Buchanan Bursaries. *Bursar*—ARTHUR POLLOK SYM, M.A.

III. By Ordinance, No. 85, of the Univ. Com., and subsequent Order in Council, the regulations for this Bursary are the same as those for the Buchanan Bursaries. —*Vacant.*

IV. By Ordinance, No. 81, of the Univ. Com., and subsequent Order in Council, the regulations for this Bursary are the same as those for the Buchanan Bursaries. *Bursar*—JAS. R. SABISTON, M.A.

V. By Ordinance, No. 76, of the Universities' Commissioners, and subsequent Order in Council, each King William Bursary is open to competition to all Masters of Arts of any of the Universities of Scotland, or Students who have passed the necessary examinations for the Degree of M.A., and who have attended for one Session, and no more, in the Faculty of Divinity in the University of Edinburgh: Provided that no person shall be a competitor who has attended for one or more Sessions in the Faculty of Divinity in any other of the Scottish Universities. The examinations in the competition shall be conducted by the Professors in the Faculty of Divinity in the University. Each Bursar shall hold his Bursary for two years, subject to the condition that he shall, during that period, give regular attendance as a Student of Theology in the University. No person shall hold either of the Bursaries along with any other Bursary, Fellowship, or Scholarship of any Scottish University. When the two Bursaries fall vacant at one time, one Bursar shall be appointed for two years, and the other for one year. *Bursars*—W. B. RITCHIE, M.A., 1880; PETER B. GUNN, M.A., 1881; T. H. CHAPMAN, M.A., 1882.

VI. Founded in memory of her brother, J. Ettles, Esq., of Havannah. Open to those who have passed all the examinations for M.A., and are in the first year of their theological course. Cannot be held with any other Bursaries or Scholarships. *See* Deed of Foundation in CALENDAR for 1867-68. *Bursars*—R. H. FISHER, M.A., 1880; CHARLES ROBERTSON, M.A., 1881; J. A. BICKERTON, M.A., 1879.

VII. As in the case of the Faculty of Arts (see No. LIII.), a student from the parishes of Crawford or Leadhills, is, if found duly qualified in respect of attainments, appointed to a Bursary in his first year, and holds it (unless he has failed to show himself a diligent student) to the end of his Theological curriculum. Failing any student from those favoured parishes, the Bursary or Bursaries will be thrown open to competition, but the winner only holds his Bursary for one year in each case. In the second and third years a student from Crawford or Leadhills has again a preference, but holds the Bursary for one year only. *See* p. 372 of CALENDAR, 1877-8. *Bursars*—First year, JOHN MACNAUGHTON, M.A.; second year, W. C. FRASER, 1880 (preferential); third year, HENRY K. REEKIE.

VIII. Founded by Mrs Isabella Webster, 38 Heriot Row, Edinburgh, in memory of her husband, George Webster, Esq. There are three Bursaries,—two of from £52, 10s. to £60, and one of from £35 to £40, open to Students of Divinity

in connection with the Church of Scotland in their first year, who have successfully passed all their Examinations for the degree of M.A. in any Scottish University, whether they have actually graduated or not. Each is tenable for three years. *See* Deed of Foundation in CALENDAR for 1878-9, p. 377. *Bursars*—HENRY FARQUHAR, M.A., 1879; W. P. PATERSON, M.A., 1880; A. B. WANN, M.A., 1881.

IX. For the *Thomson Bursaries* application may be made to Messrs Traquair, Dickson, & Maclaren, 11 Hill Street. Candidates of the name of Thomson or Traquair, or natives of the town or county of Dumfries, or of the city of Edinburgh, preferred. *See* p. 374 of CALENDAR for 1880-81. *Bursars*—ALEX. HORN, M.A., 1879; THOMAS PORTEOUS, M.A., 1880; LOTHIAN GRAY, M.A., 1881; JOHN HERON, M.A., 1881 (for one year).

X. *Mylne Bursary.*—Founded by Mrs Barbara Macaulay or Mylne, in memory of her husband, the Rev. Andrew Mylne, minister of the parish of Dollar. There is one Bursary (being the free proceeds of £750) for behoof of Students for the ministry of the Church of Scotland, of Scottish birth, tenable during the curriculum in Divinity, awarded at the end of the session, after examination (of first year's students) on the subjects taught in the Theological Classes during the session. The holder not to engage in any paid work during the session. *See* Deed of Foundation in Calendar for 1880-1. No Bursary has yet been given on this foundation.

C.—PRESENTATION BURSARIES, Open only to Graduates or Students who have passed the necessary Examinations for the Degree of M.A., but have deferred their Graduation with a view to Honours.

No. of Foundation.	Year of Found.	Name of Founder.	Total Annual Income.	No. of Bursars.	For Years.	Annual Allowance to each Bursar.	Patrons.
I.	1695	Robert Bayne of Pitcairley.	£25 0 0	1	3	£25 0 0	Society of Sons of the Clergy.
II.	1695	James Nairne.	16 13 4	1	3	16 13 4	Prof. of Divinity.

I. This formerly belonged to Ferguson of Raith, and was sold by him to the late Principal Lee; and by Principal Lee's representatives to Professor Crawford; and by Professor Crawford's representatives to the Society for the Sons of the Clergy. By Ordinance, No. 71, of the Universities' Commissioners, and subsequent Order in Council, the following are the regulations as to this Bursary:—No person shall be presented unless he be a Master of Arts of a Scottish University. Each Bursar shall hold the Bursary for three years, subject to the condition that he shall, during that period, give regular attendance as a Student in Theology in the University of Edinburgh. No person shall hold the Bursary along with any other Bursary, or with any Scholarship in the University. *Bursar*—A. C. PRINGLE, M.A., 1880.

II. *See* Ordinance, No. 67, of the Universities' Commissioners, and subsequent Order in Council. *Bursar*—JAMES A. GORDON, M.A., 1880.

D.—BURSARIES gained in Faculty of Arts, the holders of which are at liberty to study in the Faculty of Divinity.

No. of Foundation.	Year of Found.	Name of Founder.	Total Annual Income.	No. of Bursars.	For Years.	Annual Allowance to each Bursar.	Patrons.
I.	1871	The Sibbald Trustees.	About £150 0 0	5	4	About £30 0 0	The Trustees of Dr J. R. Sibbald.

I. *See* under Bursaries in Arts, No. LI. Sibbald Bursaries.

II.—PRIZE.

BARTY MEMORIAL PRIZE.

The Barty Memorial Prize of £25 for scholarship in Hebrew and Hellenistic Greek is open to entrants to the Divinity Halls of the four Scottish Universities.

1880. Robert H. Fisher, M.A., Edinburgh.

*III.—SCHOLARSHIPS.**

I.—PITT CLUB DIVINITY SCHOLARSHIP.

This Scholarship was instituted in 1862 by the Pitt Club, and consists of the annual proceeds of a sum of about £2900, tenable for three years. By Ordinance No. 77, of the Universities' Commissioners, this Scholarship is open to competition to all Masters of Arts of any of the Universities of Scotland who have given regular attendance in the Faculty of Divinity in the University of Edinburgh for three complete Sessions, and who are in the course of studying, with the view of becoming Clergymen of the Church of Scotland. No person is admissible who has been entered as a Student of Divinity more than six years prior to the time of the competition.

Candidates are to be examined on (1) The Evidences of Revealed

* It has been agreed by the Senatus and the Faculty of Divinity, in regard to the Fellowships and Scholarships of the funds of which they are severally the administrators, that

1. The *Pitt Theological Scholarship* (free proceeds of £2900) shall be competed for when it falls vacant

2. The *Aitken Theological Scholarship* (£80 or £90) shall be reserved from competition when it falls vacant in the same year with the Pitt.

3. The *Glover Divinity Scholarship* (£35) shall (according to its conditions) not be open to competition when the Pitt or Maxton may be open, and shall be similarly reserved when the Aitken is open.

4. That meanwhile the *Maxton* (about £40) be competed for when it is vacant

Religion; (2) Systematic Theology; (3) Hebrew; (4) Church History; (5) Biblical Criticism. It cannot be held with any other Scholarship, Fellowship, or Bursary of any Scottish University, or along with any parochial or pastoral charge, whether as minister or assistant.

1863. Thomas F. Johnstone, M.A.
1866. Henry Cowan, M.A.
1869. William Hastie, M.A.
1872. Andrew Benvie, M.A.
1874. Alex. Ritchie, M.A., B.D.
1876. Wm. Campbell, M.A., B.D.
1878. George Ferries, B.D.
1881. *R. S. Kirkpatrick, B.D.*

II.—MAXTON DIVINITY SCHOLARSHIP.

This Scholarship was founded by the Trustees of the late John Maxton, Esq., in 1867, and is of the annual value of about £40, tenable for three years. It is open only to Students who are members of the Established Church of Scotland, and who have completed the course of study in the Faculty of Divinity in the University of Edinburgh. (*See* Deed of Foundation, at p. 234 of CALENDAR for 1867-8.)

1868. John Fairley, M.A.
1871. James Bonallo, M.A.
1875. William Brodie, M.A.
1878. George Gardiner, B.D.
1881. *D. C. Scott, B.D.*

III.—THE GLOVER DIVINITY SCHOLARSHIP.

This Scholarship was founded in 1875 by Subscribers to a Fund for commemorating the memory of the Rev. W. Glover, D.D., and the University Endowment Association. It consists of the annual proceeds of a sum of about £800, tenable for three years, and open to all Masters of Arts of any of the Universities of Scotland who have finished their study of Theology, before entering the Church of Scotland, within six years, and who have attended the last Session of their course at least in the University of Edinburgh. It cannot be held with any other Divinity Scholarship or Bursary in any Scottish University, and it is not offered for competition in any year where there is a vacancy in the Pitt Divinity Scholarship or the Maxton Divinity Scholarship. The next competition may take place in April 1883. *See* Deed of Foundation, at p. 343 of CALENDAR for 1875-76.

1877. John Patrick, B.D.

IV.—THE AITKEN THEOLOGICAL SCHOLARSHIP.

This scholarship, founded in 1875 by bequest of the Rev. David Aitken, D.D., formerly minister of Minto, consists of the proceeds of £2500. Its purpose is to make provision for the study of Church History and Biblical Criticism at one or more University Seats in Germany, or elsewhere on the Continent of Europe, in the case of meritorious students at Edinburgh University. It is to be awarded, after competitive examination, to a Student in Divinity of the University of Edinburgh, who is a Graduate in Arts of that University of not more than four years' standing. It is tenable for two years; but

the Senatus may extend the term for another year if it appear to them desirable. The time of the competition to be fixed and publicly intimated by the Senatus at least three months before ; and the Senatus are also at liberty to prescribe whether one or more Semester in the foreign University shall be attended in each year. It is not offered for competition in the same year as the Pitt Divinity Scholarship or the Glover Divinity Scholarship. *See* Deed of Foundation at p. 344 of CALENDAR for 1876-77.

1877. James A. Paton, M.A.
1879. Archibald Turnbull, B.D.
1880. Thos. H. Graham, M.A.
1882. *Thomas A. Bickerton, M.A.*

V.—THE DAVID KIDD SCHOLARSHIP.

This Scholarship, which consists of the annual proceeds of about £1000, is to be awarded, after competitive examination in Theology, to students of any of the Universities of Scotland, natives of Scotland, who have finished their course of study with the view of becoming Ministers of the Church of Scotland. *See* Deed of Foundation in CALENDAR for 1879-80, p. 354.

1882. *Alexander Horn, M.A.*

VI.—GUNNING SCHOLARSHIPS.

These Scholarships, founded by Dr Gunning of Rio de Janeiro, are three in number, of the annual value of £40, £30, and £20 respectively, open to students of the Church of Scotland and Free Church of Scotland, tenable for two years. They are open to students of all Scottish Churches holding the Confession of Faith without modification, and the holders may study at any University or Divinity Hall under the sanction of the Churches to which they belong. The examination is on Natural History, Botany, and Geology, and some department of Natural Theology or Christian Apologetics, having special reference to the connection between religion and science. They are open to students beginning their Theological Course after a Course of not less than three years in the Faculty of Arts in a Scottish University. First appointments were made in May 1880, and the next will be in May 1883. *See* Revised Scheme of Scholarships in the present CALENDAR, p. 401.

1. and 2. { *James N. Ogilvie, M.A.*, *John Wattie, M.A.*, } equal.
3. *David Jack, M.A.*

VII.—THE TYNDALL BRUCE SCHOLARSHIP.

This Scholarship, of the value of £150 in all, is tenable for one year and a half, owing to the resignation of the scholar in the Faculty of Arts.

1882. John Dobie, B.D.

IV.—FELLOWSHIP.

THE GUNNING FELLOWSHIP.

This Fellowship, founded by Dr Gunning of Rio de Janeiro, is of the annual value of £100, tenable for two years, open to students or licentiates of the Church of Scotland or of some other Scottish Church holding the Confession of Faith without modification. It is to be awarded after a senior examination in Natural History, Botany and Geology, and in Theology, by two examiners appointed in accordance with the Revised Scheme of Regulations for the Fellowship. Each holder, at the end of his two years' tenure, to produce a Dissertation, or to deliver a few Lectures on some subject relative to the connection between the Scriptures and the Natural Sciences. First competition in May 1883. For Revised Scheme of Fellowship see the present CALENDAR, p. 401.

VACANT BURSARIES AND SCHOLARSHIPS.*

I.—At the beginning of Session 1882-83, the following Bursaries, &c., will be open for competition :—

1. *One Webster Bursary*, value £35. Open to Students of Divinity in connection with the Church of Scotland in their first year who have passed all their Examinations for the degree of M.A. in any Scottish University. Tenable for three years. The holder not allowed to engage in teaching, or any other employment without permission of the Faculty.

2. *One Ettles Bursary*, value about £40, open to those who have passed all their examinations for M.A., and are in the first year of their course in Divinity. Tenable for three years.

3. *One Thomson Bursary* (£25), tenable for four years, will also be awarded. (For revised Scheme of Allocation, see CALENDAR for 1880-81.) Students of the name of Thomson or Traquair, or who are natives of the town or county of Dumfries or of the city of Edinburgh have a preference. If no Candidate with a preferential claim appear, or if none such attain to the required standard in the Examination, the Bursary shall be awarded to the best non-preferential Candidate. The Candidates must be matriculated Students (not necessarily Graduates) entering on their *first* Session in Divinity, and are required to intimate their intention to compete to the Agents for the Trustees, Messrs Traquair, Dickson, & Maclaren, W.S., 11 Hill Street, Edinburgh, by Oct. 23, 1882.

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* None of the undernoted Bursaries or Scholarships (save the Hepburn Bursary) can be held along with any other Bursary, Fellowship, or Scholarship in any Scottish University.

4. *One Buchanan Bursary*, value £10, 8s. 4d., open to competitors who have passed all the necessary examinations with a view to M.A., and who are entering on their First or Second Session in the Faculty of Divinity. Tenable for three years.

5. *One Ramsay Bursary*, value £16, 13s. 4d., conditions and terms as in No. 4.

6. *Leighton Bursary*, value £7, 10s., conditions and terms as in No. 4.

7. *One Hepburn Bursary* (£13), open for competition by all Students of first or second year in Divinity. Preference given to Students from the Presbyteries of Weem and Auchterarder. Applicants for this Bursary to send in their names on or before Nov. 8, 1882, to the Rev. Dr Scott, minister of St George's, Edinburgh.—Also a *Hepburn Prize*, £25 (which may be divided), for the best Essay on "The Doctrine of the Atonement as taught in the New Testament," to be given in on or before the first Monday in December 1882. For further particulars apply to Rev. Dr Scott.

The subjects of examination for the above (exclusive of the Hepburn Bursary) and for any other ordinary competition Bursary for first year's Students that may be vacant at the opening of the Session will be—

(1.) *Latin*—"Horace Odes," Books II., III., and translation from English into Latin prose.
(2.) *Greek*—Homer's "Iliad," Book VI. and Philippians as in Lightfoot.
(3.) *Mathematics*—"Euclid," Books I.-IV., and Algebra to Quadratic Equations, inclusive.
(4.) *Metaphysics*—Ferrier's "Lectures on Greek Philosophy."
(5.) *Moral Philosophy*—Smith's "Theory of Moral Sentiments."
(6.) *Natural Philosophy*—Balfour Stewart's "Elementary Physics."
(7.) *Hebrew*—Elements of Grammar.
(8.) *Apologetics*—Paley's "Evidences of Christianity."
(9.) *Greek Testament*—St Luke and Hebrews.

8. *Grierson Bursaries.*—There are this year two of those Bursaries (each of £26, 13s. 4d.), to be awarded one to first, and one to second year's Students in Divinity. A Student from the parish of Crawford or the parish of Leadhills is, if he has been a good Student in Arts, and is in need of pecuniary aid, appointed to a Bursary in his first year in Divinity, and holds it (unless he has failed to shew himself a diligent student) to the end of his curriculum. If there be two or more such applicants in any year, they are to be examined. Failing any Student from one of those favoured parishes, the Bursary or Bursaries will be thrown open to competition, but the winner only holds his Bursary for

one year. In the second year a student from Crawford or Leadhills has again a preference, but holds the Bursary for one year only. See full particulars in CALENDAR (1877-8). Preferential candidates to lodge their applications with the *Secretary of the Senatus* on or before Oct. 23, 1882. There is no Grierson Bursary vacant for the third year in 1882-3.

The subjects of examination for the Grierson Bursaries, if there be competition, will be :—

For the *first* year—

Same as for ordinary Competition Bursaries, except that *Hebrew*, *Apologetics*, and *Greek Testament* are omitted.

For the *second* year—

(1.) *Apologetic Theology*—"Butler's Analogy."
(2.) *Hebrew*—Grammar, and Genesis i. to xvi.; Ps. i. to xxv.
(3.) *Church History*—A.D. 200 to A.D. 451, and 1500 A.D. to 1600 A.D.
(4.) *Biblical Criticism*—The Pentateuch, and controversies regarding it.

The BURSARY EXAMINATION will be held on Monday, October 30, and Tuesday, October 31, 1882, beginning at 10 a.m. each day.

9. *Barty Memorial Prize* of £25 for Scholarship in Hebrew and Hellenistic Greek, is open to entrants to the Divinity Halls of the four Scottish Universities. Competitors to apply to J. W. Barty, Esq., Dunblane.

II.—At the close of Session 1882-83, the following will be open for competition :—

1. One of the *King William* Bursaries of £25, tenable for two years, open to Students who have finished the first session of their Theological course, and have passed all the examinations for the degree of M.A. The subjects of examination for this Scholarship will be the work of the Session in the Classes of Divinity, Church History, Biblical Criticism, and Junior Hebrew. These Bursaries cannot be held along with any other Bursary, Scholarship or Fellowship in any Scottish University.

2. The *Glover Divinity Scholarship*, consisting of the annual proceeds of about £800, tenable for three years, and open to all Masters of Arts of any Scottish University who have finished their study of Theology before entering the Church of Scotland within six years, and who have attended their last session at least in Edinburgh University. Unless the Pitt or the Maxton Scholarship be open, the competition will take place in April 1883. Examination the same as for B.D.

3. *A. Vans Dunlop Scholarship in Oriental Languages and Comparative Philology* of £100, tenable for three years, may be offered for competition in 1883, at dates and under regulations which will be afterwards announced.

III.—At the close of the Session 1882-83 will fall to be awarded after examination—

1. Three *Gunning Scholarships*, value £40, £30, and £20 respectively, open to Students of the Churches of Scotland holding the Confession of Faith without modification, tenable for two years. They are open to students beginning their Theological Course after a Course of not less than three years in the Faculty of Arts in a Scottish University. The examination is on Natural History, Botany, and Geology, and some department of Natural Theology or Christian Apologetics, and will be held in May 1883. Book prescribed for Apologetics in 1883 is "Janet on Final Causes."

2. A *Gunning Fellowship*, value £100 a year, for two years. The competitors to be students or licentiates of the Church of Scotland or of some other Scottish Church holding the Confession of Faith without modification. If Students, they must have completed a three years' course of theological study. Competitors will be examined in Natural History, Botany, and Geology, and in their theological studies. The book prescribed in Divinity for 1883 is "Dorner's System of Christian Doctrine," vols. I. and II. (Eng. Trans.)

Intending competitors for the Gunning Scholarships and Fellowship are requested to apply to Messrs Auld & Macdonald, W.S., or to the Dean of the Faculty of Divinity, University of Edinburgh.

III.—FACULTY OF LAW,

I.—BURSARIES.

No. of Foundation.	Year of Found.	Name of Founder.	Total Annual Income.	No. of Bursars.	For Years.	Annual Allowance to each Bursar.	Patrons.
I.	1871	The Sibbald Bursaries.	About £150 0 0	5	4	£30 0 0	Trustees of Dr J. R. Sibbald.
II	1873	The Grierson Trustees.	About £80 0 0	3	1	£26 13 4	Senatus.
III	1873	The Cairns Bursary.	About £19 0 0	1	1	About £19 0 0	Senatus.
IV.	1878	DrAndrew Thomson.	£100 0 0	4	4	£25 0 0	Trus. of Dr Thomson.

I. These Bursaries may be held during the Curriculum in Law. *See* p. 333.

II. There are three Grierson Bursaries, each of the value of £26, 13s. 4d. annually. Deserving students, from the parishes of Crawford or Leadhills, applying to the Secretary of the Senatus, on or before the 22d day of October, are entitled to preference, if they satisfy certain conditions; and if the applicant is commencing his first Winter Session of the Law Curriculum he will be entitled to hold the Bursary for three years.

Failing preferential candidates the Bursaries will be tenable only for one year, and will be awarded among candidates who have attended one year in the Faculty of Arts in some University, and have applied as above-mentioned to the Secretary of the Senatus. 1. In the case of those commencing their first Winter Session in Law, the award will be to the candidate who has passed highest in Latin and Moral Philosophy at the Arts Graduation examination in October; see p. 334. 2. In the case of candidates commencing their second Winter Session —to the most distinguished law student of that standing, who, if not a Graduate in Arts, has passed satisfactorily in Latin and Moral Philosophy at the Arts Examination, either in October or earlier. 3. In the case of candidates commencing the third Winter Session of the Law Curriculum—to the most distinguished law student of that standing who has passed satisfactorily in Latin, Moral Philosophy, and Logic at the Arts Examination in October or earlier. *Bursars*—Alfred Daniell, M.A., B.Sc.; G. P. M'Neill, M.A.; Thomas Dick.

III. The Candidates for the Cairns Bursary, which is tenable only for one year, and is not subject to any preferences, are subject to the same conditions as those for the second year Grierson Bursary. The Bursary is open to Students who have completed one year in the Law Faculty. *Bursar*—W. J. Cullen, M.A.

IV. For the *Thomson Bursaries* application may be made to Messrs Traquair, Dickson, & Maclaren, 11 Hill Street. Candidates of the name of Thomson or Traquair, or natives of the town or county of Dumfries, or of the city of Edinburgh, preferred. E. Denholm Young, 1878; J. R. N. Macphail, 1879; Hay Shennan, 1880; J. A. MacCallum, 1881.

II.—THE FORENSIC PRIZE.

Is awarded annually to the Candidate who shall pass with the greatest distinction the examination in the subjects for a Degree in Law.

1876. James Macbride Dickson, LL.B.
1877. J. M. Gun, M.A., LL.B.
1878. John Ferguson M'Lennan, M.A. Aberd.
1879. John Wilson, B.L.
1880. J. F. Anderson, M.A.
1881. Robert L. Orr, M.A.

III.—SCHOLARSHIP.

VANS DUNLOP SCHOLARSHIP.

The Scholarship, which is about to be founded, will be of the annua value of £100, tenable for three years. See Excerpt from Will of Dr Vans Dunlop at p. 380 of CALENDAR for 1880-81.

IV.—EDINBURGH UNIVERSITY ENDOWMENT ASSOCIATION LAW FELLOWSHIP.

This Fellowship, of the value of £100, tenable for three years, is open to Bachelors of Laws (LL.B.) and Bachelors of Law (B.L.) of the University of Edinburgh of not more than five years' standing at the time of the competition, was awarded in 1879. The Law Fellow will deliver a Course of Lectures on "Contract Law: Distinctive Principles of Contract in Scotland," during the month of November 1882. *See* Deed of Foundation at p. 373 of CALENDAR for 1878-79.

1879. *J. F. M'Lennan, LL.B.*

BURSARIES OPEN FOR COMPETITION IN OCTOBER 1882.

Three Grierson Bursaries, value about £26 each, tenable for one year.

The Cairns Bursary, value about £20, tenable for one year.

The Sibbald Bursaries are also tenable by Students of the Faculty of Law entering the University for the first time. For further information as to these Bursaries, see CALENDAR.

A Thomson Bursary, of £25 a year, tenable for four years. Candidates must be Matriculated Students commencing their First Winter Session in the Faculty of Law, who intimate their intention to compete to Messrs Traquair, Dickson & Maclaren, W.S., 11 Hill Street, the agents for Dr Thomson's Trustees, and also to the Secretary of Senatus on or before 1st of October. Candidates of the name of Thomson or Traquair, or natives of the town or county of Dumfries or the city of Edinburgh preferred.

FORENSIC PRIZE.

This Prize, founded by the Forensic Society, will be awarded to the Graduate in Law who passes with most distinction in four subjects at the Law Graduation in June 1882.

IV.—FACULTY OF MEDICINE.

I.—BURSARIES.

No of Foundation.	Year of Found.	Name of Founder.	Total Annual Income.	No. of Bursars.	For Years.	Annual Allowance to each Bursar.	Patrons.
I.	1864	Dr Abercrombie, Cape Town.	£20 0 0 About	1	4	£20 0 0	Governors of Heriot's Hospital.
II.	1871	Dr J. R. Sibbald's Trustees.	150 0 0 About	5	4	30 0 0	Trustees of Dr J. R. Sibbald.
III.	1873	Dr Mackie's Trustees.	40 0 0 About		4	20 0 0	Trustees of Dr Mackie, Greenock.
IV.	1873	Mr Grierson of Ogscastle's Trustees.	80 0 0	4	3	20 0 0	Senatus.
V.		Mrs Bruce of Grangehill and Falkland.	25 0 0	1	1	25 0 0	Senatus.
VI.	1878	Dr Andrew Thomson	200 0 0	8	4	25 0 0 About	Trus. of Dr Thomson.
VII.	1878	William Mackenzie	50 0 0	2	1	£60 & £40	Senatus.
VIII.	1878	John Aitken Carlyle	50 0 0	2	1	25 0 0 About	Senatus.
IX.	1882	Mrs Ronald of Liverpool	80 0 0	2		40 0 0	Senatus.

MEDICAL BURSARIES.

I. *Abercromby Bursary*—Open by competition, in the event of more than one candidate coming forward, to Students who have been brought up in Heriot's Hospital, and have finished their course as Heriot Bursars, to aid them in further prosecution of their studies for any of the learned professions. Students in the Faculty of Medicine to be always preferred. Candidates are referred to the Treasurer of Heriot's Hospital, 11 Royal Exchange, Edinburgh. *Bursar*—WM. PORTEOUS.

II. The *Sibbald Bursaries* may be held during the Curriculum in Medicine. *See* p. 321, for the conditions under which they are bestowed.

III. The *Mackie Bursaries* are expected shortly to be instituted by the Trustees of the late Dr Mackie.

IV. *Grierson Bursaries*—Candidates from the parishes of Crawford or Leadhills, about to commence their Medical Curriculum, who have passed in the University of Edinburgh a satisfactory examination in the preliminary subjects required by Article I. of the Ordinances from Candidates for Graduation in Medicine, who have been diligent students, and require pecuniary aid to enable them to pursue their studies, have a preference. In the case of more candidates than one the Bursary shall be awarded to the best qualified, on examination in the subjects above referred to.

Failing the appointment of preferential candidates, the Bursary shall be tenable for periods of one year only, during four successive years, in manner following,

viz. :—The 1st year Bursary shall be awarded to the student who has taken the highest place in the whole subjects required by Ordinance for the preliminary examination which has to be passed before the first professional examination. The 2d year Bursary shall be awarded by competitive examination in the subjects of Chemistry, Botany, and Natural History. The 3d year Bursary shall be awarded by competitive examination in the subjects of Anatomy and Physiology. The 4th year Bursary shall be awarded by competitive examination in the subjects of Pathology and Materia Medica. *Bursars*—first year, ROBERT H. MITCHELL (*Preferential Candidate*), 1881; second year, M. S. ALTOUNIAN, 1881; third year, T. L. SHEARER, 1880; fourth year, HAROLD F. WATKINS, 1881.

V. *Tyndall Bruce Bursary*, given by the Senatus out of the surplus revenue of the Bruce Bursary and Scholarship Fund, is open by competition to Students who have reached the end of their third Winter Session. Subjects of Examination—Materia Medica and Pathology. *Bursar*—DIARMID NOEL PATON, B.Sc.

VI. Two of the *Thomson Bursaries* will be awarded in each year to Students commencing their first Winter Session. The examination will be held at the preliminary examination for Graduation in Medicine in March and October, and one Bursary may be awarded at each of these examinations. Candidates of the name of Thomson or Traquair, or natives of the town or county of Dumfries, or of the city of Edinburgh, have a preference. See Scheme of Allocation at p. 345 of CALENDAR, 1879-80. For subjects of examination and other particulars, application may be made to Messrs Traquair, Dickson, & Maclaren, W.S., 11 Hill Street, Edinburgh, the agents of the Trustees. *Bursars*—R. DAVIDSON, 1879; W. W. R. LOVE, 1880; DAVID MACNISH, 1881.

VII. *Mackenzie Bursaries*, open to Students in the Junior and Senior Anatomy Classes, who shall display the greatest industry and skill in Practical Anatomy, awarded at the end of each Session. *See* CALENDAR for 1879-80, p. 353. 1882, Senior, WM. MILLER; Junior, J. C. VAUGHAN, J. W. SMITH.

VIII. *Carlyle Bursaries*, one open to Students of the first year, awarded after examination in Anatomy and Chemistry, the other to Students of the second year, awarded after examination in Anatomy and Physiology. *See* CALENDAR for 1879-80, p. 350. *Bursars*—1882, Senior, M. ALTOUNIAN, H. J. STILES; Junior, J. C. LAMONT.

IX. The *Anderson Bursaries* are founded by Mrs Ronald of Liverpool, and will come into operation on the death of an annuitant.

II.—PRIZES.

I.—HOPE CHEMISTRY PRIZE.

This prize was founded by the late Professor Thomas C. Hope in 1844, for the promotion of the Study and Science of Chemistry in the University, in such manner as the Principal and Professors may appoint. It has, accordingly, been resolved that it is to be competed for biennially, at a special examination open to all Students of the University who have worked for eight months or for two Summer Sessions, in the Chemical Laboratory of the University, and who are not more than twenty-five years of age. The examination is to be on Chemistry, to be conducted by the Professor of Chemistry, in conjunction with two Examiners appointed by the Senatus, and to be practical as well as written. The successful Candidate is to spend the succeeding academical year in working in a Laboratory or Laboratories, under conditions approved by the Senatus, and to receive £100, in such sums, and at such intervals, as may be appointed by them.

No person can hold the Hope Prize more than once.

A Competition for this Prize will be held in July 1881; Candidates must send in their names to the Professor of Chemistry prior to 25th June 1881.

1871. Alexander Watt.
1874. Robert Milner Morrison.
1875. Aghornáth Chattopádhyáy.
1877. John Gibson.
1879. John Adrian Blaikie, D.Sc.
1880. W. L. Goodwin.
1881. David O. Masson.

Hope Prize Scholarship.

"The Hope Prize Scholarship" has been instituted in connection with the Chemical Laboratory of the University, under the following conditions and regulations :—

1. The scholarship shall consist of the free surplus annual revenue of the Hope Prize fund, that is, the proceeds for one year, after deduction of fifty pounds and all necessary expenses attending the management of the fund.

2. The scholarship shall be annually awarded, in the month of March, to the student who, intending to continue his studies and attendance in the Chemical Laboratory, has in the opinion of the Professor of Chemistry, most distinguished himself during the previous session in the Chemical Laboratory, declaring that the student to whom the said scholarship is so awarded shall be bound, during the succeeding Summer and Winter Sessions, to assist the Professor of Chemistry in the Chemical Laboratory, and shall be subject to the directions of the said Professor as to the nature and amount of the assistance to be so given by him.

3. If any such student, to whom the said scholarship is awarded, shall fail to continue his studies and attendance in the said Laboratory

during the Summer Session immediately succeeding the award of said scholarship, the scholarship shall be forfeited by such student and assigned to the student next in merit in the opinion of the said Professor, who shall continue his studies and attendance in the said Laboratory.

4. If the holder of the scholarship shall continue his studies and attendance in the said Laboratory during the said Summer Session, but shall fail to continue such study and attendance during the Winter Session next succeeding, he shall be entitled to receive one-third part of the scholarship, and the remainder of the scholarship shall be assigned to the student next in merit in the opinion of the Professor of Chemistry, and who shall continue his studies and attendance during the succeeding Winter Session under the above-mentioned conditions.

5. In the event of there having been no student deemed by the said Professor worthy of the said scholarship, either originally or on its forfeiture (complete or partial) as aforesaid, the scholarship shall not be awarded, and the surplus annual income of the Hope Prize fund shall be added to the capital sum of the said fund.

6. That one-third part of the scholarship shall be payable at the term of Lammas, and two-third parts at the term of Candlemas.

1875. George Carr Robinson.
1876. William W. J. Nicol.
1876. { Thos. Lindsay. / John O. Morrison.
1877. Wm. Inglis Clark.
1878. Lewis Johnstone.
1879. W. L. Goodwin.
1880. William Marshall.
1881. { Cecil Reddie. / C. Hunter Stewart.
1882. Hugh Robert Mill.

II.—THE ROBERT WILSON MEMORIAL PRIZE.

This Prize was founded by John Wilson of South Bantaskine, in memory of his son, Robert Wilson, and consists of the annual proceeds of a sum of £250. It is to be annually awarded at the close of the Winter Session to the student in the senior Chemistry Class who takes the highest honours. See Deed of Foundation at p. 351 of CALENDAR for 1876-77.

1877. R. A. Lundie.
1878. John Waugh.
1879. Harold Fuller Watkins.
1880. G. Nieuwodt.
1881. Hugh Robert Mill.
1882. J. C. Lamont.

III.—THE ELLIS PRIZE FOR PHYSIOLOGY.

This Prize consists of the proceeds of a sum of £500 bequeathed by the late Daniel Ellis, Esq., to the Principal and Medical Faculty of the University of Edinburgh, accumulated for three or five years. It is to be awarded for the best Essay or Treatise on some subject of Animal or Vegetable Physiology to be proposed by the Faculty, for Competition, to Students or Graduates of five years' standing. The subject of the first competition is as follows:—"On the respiration of plants as distinguished from their nutrition; an experimental inquiry into the

reciprocal action between a plant and the air; in the light, in darkness, and exposed to different amounts and qualities of light."

The Prize was awarded in April 1882.

1882. Patrick Geddes.

IV.—MEDICAL FACULTY PRIZES.

Gold Medals are given annually on the day of graduation to Doctors of Medicine whose Theses are deemed worthy of that honour. (For List of Prizemen, *see* pp. 151, 156.

V.—THE GOODSIR MEMORIAL PRIZE.

This Prize was founded in 1872 by the subscribers to the fund for a memorial of the late Professor John Goodsir. It is in the patronage of the Principal, Dean of the Medical Faculty, and Presidents of the Royal Colleges of Physicians and Surgeons of Edinburgh, and is for the encouragement of the study of Anatomy and Physiology. It is to be given triennially, and is to be of the value of £60 sterling. It is open to all Graduates in Medicine of the University of not more than three years' standing at the time of the competition, and to Licentiates of the Colleges of Physicians or Surgeons of Edinburgh of a like standing, who have attended within the University the same number of classes as are required for the Degree of M.B. The Prize is awarded for the best Essay containing results of original investigations in Anatomy, Human and Comparative, either Normal, or Pathological, or in Experimental Physiology.

The next award may be made in August 1884, and competing Dissertations must be given in to the Professor of Anatomy not later than the 30th April previously. *See* Deed of Foundation at p. 314 of CALENDAR for 1872-73.

1875. James Foulis, M.D.
1878. Wm. J. Dodds, M.B., C.M., D.Sc.
,, Charles Smart Roy, M.D.
1881. Matthew Hay, M.D.

VI.—THE WIGHTMAN PRIZE IN CLINICAL MEDICINE.

This Prize, which consists of the annual proceeds of a sum of £300, was founded by Mrs E. Wightman, in memory of her son, J. T. Wightman, M.B., C.M., and is to be annually awarded at the close of the Summer Session to the student attending the Class of Clinical Medicine who shall write the best Dissertation on any subject presented by the Medical Faculty, or who shall make the best Report and Commentary on cases which have during the previous Winter and Summer Sessions been treated in the University Clinical Wards in the Royal Infirmary. Three months' notice of subject is to be given by the Medical Faculty. *See* Deed of Foundation at p. 348 of CALENDAR for 1876-77.

The Prize, which is open to members of the Clinical Class, either of Winter 1881-82 or Summer 1882, will be awarded for the best report and commentary on cases. The papers to be given in on July 7th.

1878. Alexander Bruce Low, M.B., C.M.
1879. James Leith Waters.
1880. Richard Frank Rand, M.B., C.M.
1881. Francis William Grant.

VII.—THE BEANEY PRIZE.

This Prize, which consists of the annual proceeds of a sum of £1000, was founded in 1878 by James George Beaney, Esq., of Melbourne. It is awarded at the Graduation Ceremonial in Medicine to the Graduate in Medicine and Surgery of the year who, having attended within the University courses on Anatomy, Surgery, and Clinical Surgery qualifying for Graduation, shall obtain the highest number of marks during his examinations in these subjects for the Degrees of Bachelor of Medicine and Master of Surgery. The Senatus has the power of withholding the Prize in the event of no Student passing the above examinations with sufficient merit. *See* Deed of Foundation at p. 371 of CALENDAR for 1878-9.

1878. Robert Robertson, M.B., C.M.
1879. J. H. M. Beck, M.B., C.M.
,, Edwin Hyla Greves, M.B., C.M.
1880. William Henry Dobie, M.B., C.M.
1881. David Hepburn, M.B., C.M.

VIII.—THE CAMERON PRIZE.

This Prize was founded in 1878 by the late Dr Andrew Robertson Cameron, of Richmond, New South Wales. It consists of the annual proceeds of a sum of £2000, and is to be given annually "to the practitioner or member of the medical profession who shall be adjudged to have made the most valuable addition to Practical Therapeutics during the year preceding, and in determining such question, the word Therapeutics shall be taken in its widest sense as including every agent, or agency capable of influencing the human body in the maintenance or improvement of health, avoidance or cure of diseases, or the alleviation of suffering."

The first award was made in August 1879. *See* Deed of Foundation at p. 377 of CALENDAR for 1878-9.

1879. Paul Bert, Professor in the Faculty of Sciences, Paris.
1880. William Roberts, M.D., F.R.S.

IX.—GILCHRIST FUND FOR PHILOSOPHICAL INSTRUMENTS.

The income of this Fund is for the purpose of providing Scientific Apparatus for the purposes of Teaching and Research in connection with the University. See Deed of Foundation, p. 367 of CALENDAR for 1880-81

III.—SCHOLARSHIPS.

I.—ETTLES MEDICAL SCHOLARSHIP.

This Scholarship was founded in 1868 by Miss Mary Ettles of Inverness, and consists of the free annual proceeds of the sum of £1000 mortified for the purpose. It is to be awarded annually to the Graduate in Medicine of the University of Edinburgh, whom the Medical Faculty may consider the most distinguished of that year. (*See* Deed of Foundation, at page 242 of CALENDAR for 1868-69.)

1869. Henry Alleyne Nicholson, M.D., D.Sc. Edin.
1870. David Page, M.B., C.M.
1871. Urban Pritchard, M.D.
1872. William Stirling, M.B., C.M., D.Sc.
1873. John Wilson Alston, M.B., C.M.
1874. James Murdoch Brown, M.B., C.M.
1875. Adam Robert Turnbull, M.B., C.M.
1876. D. Grant, M.A., M.B., C.M.
1877. William Richardson. M.B., C.M.
1878. Matthew Hay, M.B., C.M.
1879. Alex. Bruce, M.B., C.M.
1880. Thos. Peter Anderson Stuart, M.B., C.M.
1881. Barclay Josiah Baron, M.B., C.M.

II.—SIBBALD MEDICAL SCHOLARSHIP.

This Scholarship is of the annual value of £40. *First*, The Scholarship shall be bestowed on, and held by, a Student of the Medical Faculty in the University of Edinburgh, *who does not hold any other Scholarship or Bursary*, and shall be tenable for three years, during which period the Scholar shall complete the prescribed course of medical study required from Candidates for the degree of Bachelor of Medicine. *Second*, The Scholarship shall be bestowed upon the Student obtaining the highest place by Competitive Examination, and shall be open to all Candidates who have not previously been Students of Medicine in any other School or University, and who have attended Medical Classes in the University of Edinburgh, for *not less* than one Winter and one Summer Session, and for *not more* than one Winter and two Summer Sessions. The Competitive Examination shall be in Chemistry, Botany, and Natural History, and shall be conducted in such manner as the Senatus Academicus shall, in concurrence with the Trustees, prescribe. *Third*, Every Candidate shall, along with his application to the Trustees, lodge a certificate by a Professor of the University of Edinburgh, or by a householder in Edinburgh, to the effect that he is a person of respectability and good conduct. *Fourth*, In the event of the Scholar being expelled or rusticated from the University, he shall *ipso facto* forfeit his Scholarship during the remainder of its currency. *Fifth*, It shall be in the power of the Trustees at any time, on a report from the Principal

of the University for the time being of misconduct on the part of the holder, to declare the Scholarship forfeited, or to suspend the same for such period as they may think proper. *Sixth*, The Scholarship shall be payable in two equal portions, one half on 1st May, and the other half on 1st August,—beginning the payment of the first half of each year's Scholarship on 1st May, at the close of the first Winter Session, and the payment of the second half on 1st August thereafter,—and so on during the currency of the Scholarship; and the Scholar, in order to entitle him to receive payment, shall produce to the Trustees, or to their Factors and Cashiers, the Tickets for, and Certificates of regular attendance at, the Classes which he has attended during the previous Session; and the Scholar shall in each year complete an *annus Medicus* in the University of Edinburgh. The next competition may take place in October 1883. Application to be made to Messrs MACKENZIE, INNES, & LOGAN, W.S., 23 Queen Street, Edinburgh.

1871. Andrew Stark Currie.
1875. Charles Begg.
1880. *John Stevens.*

III.—THOMSON SCHOLARSHIP.

The Thomson Scholarship, value £40, tenable for four years, open to matriculated students commencing their first Winter Session in Medicine. The examination is on Botany, Zoology, and Elementary Mechanics, and is held in the third week of October. It is awarded to the preferential candidate who shall obtain 50 per cent. in the examination, failing whom to the candidate who shall obtain the highest number of marks. Next appointment may be made in October 1885. A preference to be given to candidates of the names of Thomson or Traquair, or natives of the town or county of Dumfries, or of the City of Edinburgh. *See* Scheme of Allocation, at p. 345 of CALENDAR for 1879-80. For subjects of examination and other particulars, application may be made to Messrs Traquair, Dickson, & Maclaren, W.S., 11 Hill Street, Edinburgh.

1878. Francis Grant Ogilvie.
1881. *G. L. Gulland.*

IV.—COLDSTREAM MEMORIAL MEDICAL MISSIONARY SCHOLARSHIP.

The Coldstream Memorial Medical Missionary Scholarship was founded in memory of the deceased John Coldstream, M.D., F.R.C.P.E. Value £25, tenable for four years. The holder must be a first year's Medical Student, who intends to devote himself to the life of a Medical Missionary at home or abroad. He must be approved of by the awarders, and pass the preliminary examination before beginning his studies. Next award in 1883. A preference is given to students connected with the Edinburgh Medical Missionary Society. A full copy of

the conditions can be had on applying to John P. Coldstream, W.S., 5 East Castle Road, Merchiston, Edinburgh. *See* Conditions in CALENDAR for 1879-80, p. 357.

1879. *Sidney A. Comber.*
,, *Frank I. Mackinnon.*

V.-X.—VANS DUNLOP SCHOLARSHIPS.

Six Vans Dunlop Scholarships, each of the value of £100, and tenable for three years, are founded in the Faculty of Medicine. Not more than one of these Scholarships at a time shall be held by the same person. One shall be awarded to the Medical Student who shall, at either the March or the preceding October Preliminary Examination, have obtained the highest total number of marks in the subjects required to enable him to appear for a Professional Examination. The successful Candidate will be required to pursue his medical studies in the University of Edinburgh during his tenure of the Scholarship. The next award may be made in March 1884.

One shall be awarded for subjects of first year's study, viz., Botany, Zoology, Chemistry, and Anatomy, to the Student who, having attended, for the first time, a systematic course of Lectures on each of the above Subjects during the preceding Winter Session, and also during either the preceding or current Summer Session, shall obtain the highest number of marks collectively in the University Class Examinations in those Subjects; provided that he has gained not less than 60 per cent. of the marks in each of all the subjects. The successful Candidate shall continue his medical studies in the University during his tenure of the Scholarship. The first award may be at the end of July 1884.

One shall be awarded for subjects of second year's study, viz., Physiology and Surgery, to the Student who, during the Winter Session, shall have attended, for the first time, a systematic course of Lectures on each of these Subjects, and who shall have obtained the highest collective number of marks in the Class Examinations; provided that he has gained not less than 60 per cent. of the marks in each of the two subjects. The successful Candidate shall continue his medical studies in the University during at least two years of his tenure of the Scholarship, whilst the remaining year must be passed in study, either in this University, or in some other School of Medicine to be approved by the Medical Faculty. The next award may be at the end of March 1884.

Three Scholarships, of which one shall be awarded at the end of the third Winter of Medical Study to the Student who, after having attended within the University the Subjects of Examination, shall obtain the highest number of marks in an Examination, specially conducted for the purpose, on Anatomy, Physiology, Materia Medica, and Pathology. The successful Candidate shall continue, for at least the first year of his tenure of these Scholarships, his studies in this Uni-

versity, and during the remaining period shall prosecute research in some branch of study comprised in the Medical curriculum. The next award will be in April 1885, and one in each subsequent year. See Excerpt from Will of Dr Vans Dunlop at p. 380 of CALENDAR for 1880-81.

1881. *George Fisher*, Physiology and Surgery.
1881. *Eustace G. Pilgrim*, in Preliminary Examination.
1881. *B. C. Jastrzebski*, in Bot., Zool., Chem., Anat.
1881. *Frederick Ashwell*, in Anatomy, Physiology, Materia Medica, Pathology.

XI.—THE MURCHISON MEMORIAL SCHOLARSHIP.

This Scholarship consists of the annual proceeds of about £1000 awarded in alternate years in London and Edinburgh for proficiency in Clinical Medicine. Candidates must be registered medical students who have attended for not less than four nor more than six years at Hospital, and classes at London and Edinburgh recognised by the College of Physicians of London or the University of Edinburgh. The first award was made in London in April 1882, and the next will be at Edinburgh in April 1883.

XII.—STARK SCHOLARSHIP.

The Stark Scholarship consists of the interest of £1400, and is for the foundation of a Scholarship in Medicine. It will be in operation shortly.

XIII.—BUCHANAN SCHOLARSHIP.

This Scholarship consists of the proceeds of £1000, given by Mrs James Buchanan, who endowed the Buchanan Medical Ward in the Royal Infirmary. It is to be awarded each year to the Graduate in Medicine who shows the highest proficiency in Midwifery and Gynecology.

1881. *James Hewetson, M.B., C.M.*

IV.—FELLOWSHIPS.

I.—THE SYME SURGICAL FELLOWSHIP.

This Fellowship, which consists of the annual proceeds of a sum of £2850, and is tenable for two years, is open to competition among Bachelors of Medicine of not more than three years' standing who shall present the best Thesis on a Surgical subject giving evidence of original

research, whether such Thesis be given in for Graduation or otherwise. The next award may be at the Graduation Ceremonial in August 1882. Theses intended for competition must be lodged with the Dean of the Medical Faculty on or before 30th April 1882. *See* Deed of Foundation, at p. 310 of Calendar for 1872-73.

1877. William Watson Cheyne, M.B., C.M.
1880. *David Berry Hart, M.D.*

II.—THE LECKIE-MACTIER FELLOWSHIP.

The Leckie Mactier Fellowship, consisting of the interest of £2000, is awarded to Bachelors of Medicine of not more than three years' standing. It is tenable for three years. The examinations comprise written reports and commentaries on medical, surgical, and gynecological cases in the University Wards in the Royal Infirmary, and written examinations in Midwifery, Medical Jurisprudence, and Public Health; also oral examinations in Medicine, Surgery, Midwifery, Medical Jurisprudence, and Public Health. Every holder of the Fellowship must, before the expiry of his tenure, transmit to, and if required read publicly in presence of the Medical Faculty, a communication embodying the result of original observation or historical research in some department of medicine. Next appointment may be made in November 1882. *See* Deed of Foundation at p. 365 of CALENDAR for 1880-81.

1879. *Alexander Bruce, M.B.*

III.—THE SWINEY LECTURESHIP ON GEOLOGY.

This Lectureship—candidates for which must have taken the Degree of Doctor of Medicine at the University of Edinburgh—is in the patronage of the Trustees of the British Museum, and is of the annual value of £144. The office is tenable for five years, at the expiration of which period the Lecturer is ineligible for the next election. The number of lectures is not to be less than twelve in each year, not more than three in the same week. A course was delivered at Edinburgh, July 1868, and each subsequent course will be delivered between the first of November and the end of July following, at such public places in the United Kingdom as the Trustees shall approve of. The public are to be admitted without fee. The Lecturer will be required at the termination of each course to deposit a copy, or full extract of such course of lectures, with the Principal Librarian of the British Museum, to whom application may be made for further particulars.

MEDICAL FELLOWSHIPS, SCHOLARSHIPS, BURSARIES, AND PRIZES.

VACANT IN 1882-3.

FELLOWSHIPS.

The Falconer Memorial Fellowship, value £100, tenable for two years. It is for the encouragement of the study of Palæontology and Geology, and is open to Graduates in Medicine or Science of the University of not more than three years' standing. The next appointment may be made in 1883.

The Syme Surgical Fellowship, value about £100, tenable for two years, open to competition to Bachelors of Medicine of not more than three years' standing, who shall present the best Thesis on a Surgical subject, giving evidence of original research or practical talent. The Fellowship may be awarded in August 1882. Theses for competition must be given in before 30th April, of that year.

The Leckie-Mactier Fellowship, consisting of the free annual proceeds of £2000, open to competition to Bachelors of Medicine of not more than three years' standing. The Fellowship to be tenable for three years, and the next award will be in November 1882. The examination will comprise written Reports and Commentaries on three Medical, three Surgical, and one Gynecological case in the University Wards in the Royal Infirmary; a Written Examination in Midwifery, Medical Jurisprudence, and Public Health; and an Oral Examination in Medicine, Surgery, Midwifery, Medical Jurisprudence, and Public Health.

SCHOLARSHIPS.

The Sibbald Scholarship, value £40, tenable for three years. The Scholarship shall be bestowed upon the Student obtaining the highest place by Competitive Examination, and shall be open to all Candidates who have not previously been Students of Medicine in any other School or University, and who have attended Medical Classes in the University of Edinburgh, for *not less* than one Winter and one Summer Session, and for *not more* than one Winter and two Summer Sessions. The Competitive Examination shall be in Chemistry, Botany, and Natural History. The next competition will take place in October 1883. Candidates for the Sibbald Scholarship and Bursaries to give their names to Messrs Mackenzie, Innes and Logan, W.S., 23 Queen Street, Edinburgh.

A *Hope Prize Scholarship*, value about £30, will be awarded in March 1883 to the most distinguished Junior Student in the Chemical Laboratory during the Winter Session.

The *Thomson Scholarship* of the Value of £40 yearly, tenable for four years, will be awarded in October 1882. The subjects of examination are Botany, Zoology, and Elementary Mechanics. Open to matriculated Students about to commence their first Winter Session in

the Medical Faculty. A preference is given to Candidates of the names of Thomson or Traquair, or to natives of the town or county of Dumfries, or of the city of Edinburgh.

The Vans Dunlop Scholarships.—Six Scholarships, each of the value of about £100, and tenable for three years. Not more than one of these Scholarships at a time shall be held by the same person.

One shall be awarded to the Medical Student who shall, at either the March or the preceding October Preliminary Examination, have obtained the highest total number of marks in the Subjects required to enable him to appear for a Professional Examination. The successful Candidate will be required to pursue his Medical studies in the University of Edinburgh during his tenure of the Scholarship. The next award shall be made in March 1884.

One shall be awarded for Subjects of First year's Study, viz., Botany, Zoology, Chemistry, and Anatomy, to the Student who, having attended, for the first time, a systematic course of Lectures on each of the above Subjects during the preceding Winter Session, and also during either the preceding or current Summer Session, shall obtain the highest number of marks collectively in the University Class Examinations in those Subjects; provided that he has gained not less than 60 per cent. of the marks in each of the Subjects. The successful Candidate shall continue his medical studies in this University during his tenure of the Scholarship. The next award to be at the end of July 1884.

One shall be awarded for Subjects of second year's Study, viz., Physiology and Surgery, to the Student who, during the Winter Session, shall have attended, for the first time, a systematic course of Lectures on each of these subjects, and who shall have obtained the highest collective number of marks in the Class Examinations; provided that he has gained not less than 60 per cent. of the marks in each of the two Subjects. The successful Candidate shall continue his medical studies in the University during at least two years of his tenure of the Scholarship, whilst the remaining year must be passed in study, either in this University, or in some other School of Medicine to be approved by the Faculty of Medicine. The next award to be at the end of March 1884.

Three shall be awarded at the end of the third Winter of Study of Subjects in the Medical Curriculum, of which one shall be given in each year to the Student who, after having attended within the University the Subjects of Examination, shall obtain the highest number of marks in an Examination, specially conducted for the purpose, on Anatomy, Physiology, Materia Medica, and Pathology. The successful Candidate shall continue, for at least the first year of his tenure of these Scholarships, his medical studies in this University, and during the remaining period shall prosecute research in some branch of study comprised in the medical curriculum, and approved of by the Faculty of Medicine. One of these Scholarships will be awarded annually in April.

The Vans Dunlop Scholarships in Chemistry and Chemical Pharmacy,

and in Natural History, including Botany and Geology.—These Scholarships are of the value of about £100, and are tenable for three years.

The Scholarship in Chemistry and Chemical Pharmacy shall be open to all Students of the University, from the second to the sixth year (inclusive) of their attendance. The subjects of examination shall be (*a*), Inorganic and Organic Chemistry, and the connection between the Chemical and Physical Character of Substances; (*b*) Qualitative and Simple Quantitative Analysis of Inorganic Substances, and the Preparation and Testing of Chemical Substances in the British Pharmacopœia. The Examination in Subjects (*a*) shall be similar to that for the Second B.Sc. Examination, and in Subjects (*b*) shall be conducted practically in the Laboratories of Chemistry and of Practical Materia Medica. The successful Candidate shall be required to submit annually, during his tenure of the Scholarship, evidence that he is prosecuting his studies or his professional work in a manner satisfactory to the Senatus. This evidence may consist of (1), Certificates of attendance on Lectures or Laboratories approved by the Senatus; (2), a Certificate of having acted as an Assistant to a Professor; (3), a written Report of his work done during each year, together with a Thesis composed by himself in connection with some part of that work. The next award may be made in April 1885, the examination being held at the same time as the Second B.Sc. Examination. For Regulations for the Scholarship in *Natural History*, *see* Calendar.

The Coldstream Memorial Medical Missionary Scholarship, consisting of the free annual proceeds of at least £400, is open to Students of Medicine who intend to prosecute their studies in the University of Edinburgh, and who propose to devote their lives to the calling of a Medical Missionary. The Scholarship is tenable for Four years, and the next award may be made in October 1883. For further information, apply to John P. Coldstream, W.S., 3 East Castle Road, Merchiston.

The Buchanan Scholarship, consisting of the annual proceeds of £1000, will be awarded yearly, on the day of Medical Graduation, for proficiency in Midwifery and Gynecology. The award will be based upon the results of Competitive Examinations in the Class of Midwifery and Diseases of Women and Children, upon the character of the records kept of cases treated in the Gynecological section of the Class of Clinical Medicine, and upon the appearance made by the Candidate at the final Graduation Examination. The next award will be made in August 1882.

The Murchison Memorial Scholarship, tenable for one year, and consisting of the annual proceeds of about £1000, will be awarded in alternate years in London and Edinburgh, for proficiency in Clinical Medicine. Candidates to be registered Medical Students in attendance for not less than four nor more than six years at Hospitals and Classes in London and Edinburgh, recognised by the College of Physicians of London, or the University of Edinburgh. The first competition will take place in London in April 1882, and the next in Edinburgh in 1883.

BURSARIES.

The Abercrombie Bursary of £20, tenable for four years, is open to students who have been brought up in Heriot's Hospital, during their medical curriculum. Information as to this Bursary will be got from the Treasurer of Heriot's Hospital.

Two Sibbald Bursaries, value £30 each.

Eight Thomson Bursaries, value £25 each, tenable for four years. One to be competed for each March and October, at the Preliminary Examinations required from Candidates for graduation in Medicine. Candidates shall be those about to commence their Medical curriculum who shall attend the said Preliminary Examination and who shall pass in a sufficient number of subjects to enable them to appear for a professional examination. A preference to be given to Candidates of the names of Thomson or Traquair, or to natives of the town or county of Dumfries, or of the city of Edinburgh. Candidates for the Thomson Bursaries and Scholarship to give their names to Messrs Traquair, Dickson & Maclaren, W.S., 11 Hill Street, Edinburgh.

Four Grierson Bursaries of £20 a-year each, to be awarded to natives of the Parishes of Crawford and Leadhills. In the absence of such preferential Candidates each Bursary shall be tenable for one year only, and will be open to competition—one Bursary to be awarded to the Student who shall pass the best examination of the year in the subjects of the Preliminary Examinations, which have to be passed before the First Professional Examination; One Bursary to the Student commencing the Second Winter Session who shall pass the best Examination in Chemistry, Botany, and Natural History; One Bursary to the Student commencing the Third Winter Session who shall pass the best examination in Anatomy and Physiology; One Bursary to the Student commencing the Fourth Winter Session who shall pass the best Examination in Materia Medica and Pathology.

One Tyndall Bruce Bursary of £25, tenable for one year, to be competed for by Students who have reached the end of their third Winter Session—subjects of examination, Materia Medica and Pathology. To be awarded in October 1882.

Two Dr John Aitken Carlyle's Medical Bursaries of the value of £25 each, tenable for one year, to be awarded at the end of each Winter Session; One to a first year's Student for proficiency shown in the Ordinary Class Examinations in Anatomy and Chemistry; One to a second year's Student for proficiency shown in the Ordinary Class Examinations in Anatomy and Physiology.

Two Mackenzie Bursaries, consisting of the annual proceeds of £1000, to be awarded annually, one to the Student in the Junior Class of Practical Anatomy, and one to the Student in the Senior Class of Practical Anatomy, who shall respectively display the greatest industry and skill in their Practical Anatomy work during the Winter Session.

Competitors for the above Bursaries must have studied the subjects of Examination at the University of Edinburgh; and they are not to be held along with any other Bursary, Scholarship, or Fellowship.

PRIZES.

The Medical Faculty Medals.—Gold Medals are given on the day of Graduation to Doctors of Medicine whose Theses are deemed worthy of that honour.

The Ettles Medical Prize is awarded annually to the graduate in medicine whom the Medical Faculty may consider the most distinguished of the year. Value about £40.

The Beaney Prize is awarded annually to the Candidate for the Degrees of M.B. and C.M. who, after having attended, within the University, courses of Anatomy, Surgery, and Clinical Surgery, qualifying for Graduation, shall obtain the highest number of marks in those subjects during his Examinations for these degrees. Value about £40.

The Hope Chemistry Prize, open to all students of the University of not more than twenty-five years of age, who have worked for eight months, or for two summer sessions, in the chemical laboratory of the University, will be filled up in July 1882. Names to be given in to the Professor of Chemistry on or before 24th June. Value £100.

The Neil Arnott Prize, of about £40, is awarded annually to the Candidate who shall pass with the greatest distinction the Ordinary Examination in Natural Philosophy for the degree of M.A. Candidates must have been Medical Students of this University during either a summer or a winter session, and the successful Candidate must continue a Medical Student of this University during the winter session. No Student can appear for examination after the completion of his third *annus medicus*, and no Candidate shall be allowed to offer himself more than once.

The Ellis Prize is awarded triennially for the best Essay or Treatise on some subject of Animal or Vegetable Physiology to be proposed by the Faculty for competition to students or graduates of five years' standing. *See* CALENDAR for notice of subject. Value, proceeds of about £500 accumulated for three years.

The Goodsir Memorial Prize of £60 is awarded triennially. Next award may be in August 1884. Theses for competition to be lodged on or before 30th April of that year with the Professor of Anatomy.

The Wightman Prize is awarded annually to the Student of the Class of Clinical Medicine, who shall write the best Report and Commenaary on Cases treated in the University Clinical Wards during the Academic year.

The *Cameron Prize* consisting of the free income of £2000, to be given yearly to the Member of the Medical Profession, who shall be adjudged to have made the most valuable addition to Practical Therapeutics during the year preceding the award.

The Dobbie-Smith Gold Medal in Botany is open for competition on ach alternate year to all matriculated Students of the year of award, for an essay on a Botanical Subject. The subject of the first competition is "On the Geographical and Botanical Distribution of Algae," and the essay is to be accompanied with a collection of Algae from the Firth of Forth or from the Firth of Clyde. Competing essays to be sent to the Dean of the Faculty of Medicine on or before the 1st of July 1883. The prize will be awarded to the successful competitor at the graduation ceremony of August 1883.

LECTURESHIP.

The Swiney Lectureship on Geology, value £144, tenable for five years, is open to Doctors of Medicine of the University of Edinburgh. It is in the patronage of the Trustees of the British Museum.

V. FELLOWSHIP AND SCHOLARSHIPS IN SCIENCE.

I.—THE FALCONER MEMORIAL FELLOWSHIP.

This Fellowship was founded in 1869 by the Subscribers to the Fund for a Memorial to Dr Hugh Falconer, M.D., (for many years Superintendent of the H. E. I Company's Botanic Gardens at Suharunpoor and Calcutta), and the Association for the better Endowment of the University of Edinburgh. It is of the annual value of about £108; and is for the encouragement of the Study of Palæontology and Geology. It is tenable for two years, but if the Senatus see fit, it may be held for three years, and with consent of the University Court, for four years, and is awarded after competitive examination in Natural History as applied to Palæontology and Geology. It is open to Graduates in Science or Medicine of this University of not more than three years' standing at the time of the competition. It cannot be held along with any other Fellowship, Scholarship, or Bursary in any Scottish University. The Deed of Foundaton will be found at p. 270 of the CALENDAR for 1870-71.

1871. William Stirling, B.Sc.
1874. George A. Gibson, B.Sc.
1878. R. A. Lundie, B.Sc.
1882. *J. Theodore Richards, B.Sc.*

II.—BAXTER PHYSICAL SCIENCE SCHOLARSHIP.

This Scholarship was founded by Sir David Baxter, Bart., of Kilmaron, in 1865. It consists of one-half of the annual proceeds of a sum of £3500, tenable for two years. By the terms of the Deed of Foundation (given in the CALENDAR for 1866-7, p. 203), it is to be awarded to the most eminent of the Bachelors in Science, who have passed their examinations in the Physical Sciences, including Experimental Philosophy and

Chemistry, either in the year preceding a vacancy, or in the year in which a vacancy occurs. Amongst other conditions the second year's tenure of this Scholarship is subject to the condition that the holder shall have taken the Degree of Doctor in Science in the first year of his tenure of it. It cannot be held with any other Scholarship, Fellowship, or Bursary, or with any situation yielding an annual income of £100.

1866. John Affleck, M.A. (Glas.), B.Sc. (Edin.)
1868. James Gow Black, M.A., B.Sc. (Edin.)
1870. Andrew Peebles Aitken, M.A., B.Sc.
1874. Robert Romanis, B.Sc.
1876. Aghornath Chattopadhyay, B.Sc
1878. John Adrian Blaikie, B.Sc.
1881. *Arthur T. Stanton, B.Sc.*

III.—BAXTER NATURAL SCIENCE SCHOLARSHIP.

This Scholarship was founded by Sir David Baxter, Bart., of Kilmaron, in 1865. It consists of one-half of the annual proceeds of a sum of £3500, tenable for two years. By the terms of the Deed of Foundation (given in the CALENDAR for 1866-67, p. 203), it is to be awarded to the most eminent of the Bachelors in Science, who have passed their examinations in the Department of the Natural Sciences, including Botany, Zoology, Physiology, and Geology, either in the year preceding a vacancy or in the year in which a vacancy occurs. Amongst other conditions the second year's tenure of this Scholarship is subject to the condition that the holder shall have taken the Degree of Doctor in Science in the first year of his tenure of it. It cannot be held with any other Scholarship, Fellowship, or Bursary, or with any situation yielding an annual income of £100.

1866. Henry Alleyne Nicholson, B.Sc.
1868. Thomas Lauder Brunton, M.B., B.Sc.
1870. William Stirling, B.Sc.
1871. Alexander Hodgkinson, B.Sc.
1873. I. Bayley Balfour, B.Sc.
1875. John Robertson, B.Sc.
1876. W. J. Dodds, B.Sc.
1878. William Aitchison Haswell, B.Sc.
1879. William S. Herdman, D.Sc.
1880. D. N. Paton, B.Sc.

IV.-V.—VANS DUNLOP SCHOLARSHIPS IN SCIENCE.

CHEMISTRY AND CHEMICAL PHARMACY.

1. The Subjects of Examination shall be—
   (*a*) Inorganic and Organic Chemistry, and the connection between the Chemical and Physical character of Substances.
   (*b*) Qualitative and Simple Quantitative Analysis of Inorganic Substances, and the Preparation and Testing of the Chemical Substances in the British Pharmacopœia.

2. The Examination in subjects (*a*) shall be similar, and held at the same time, as that for the Second B.Sc. Examination. The Examination in subjects (*b*) shall be conducted practically in the Laboratory.

3. The Competition shall be open to all Students of the University, from the second to the sixth year (inclusive) of their attendance.

1882. *Cecil Reddie, B.Sc.*

NATURAL HISTORY, INCLUDING GEOLOGY AND BOTANY.

1. The subjects Natural History, Geology, and Botany are coequal in the Examination, and the Examination in each of the three subjects shall be similar to that for the Second B.Sc. Examination, and shall consist of two parts—a Written Examination extending over not less than three hours, and a Practical Examination with specimens.

2. The Examination will be held in April, at the same time as the Second B.Sc. Examination.

3. The Competition shall be open to all Students of the University, from the second to the sixth year (inclusive) of their attendance.

These Scholarships shall be tenable for three years, on condition that the scholar submits annually—

(1.) A certificate of attendance on lectures or laboratories approved by the Senatus ; or

(2.) A certificate of having acted as an assistant to a Professor in this or some other University ; or

(3.) A written report of his work done during the year, together with a Thesis composed by himself in connection with some part of that work.

The Examiners shall be the Professors in the different subjects.

Deeds of New Foundations.

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I.—GRIERSON BURSARIES.

We, Robert Paterson of Cameron Cottage or Cameron Lodge, near Lasswade; John Ross, Solicitor, Supreme Courts, Edinburgh; Robert Noble Ramsay, Agent of the Royal Bank at their sub-branch, Forrest Road, Edinburgh; and John Ross, Writer to the Signet, Edinburgh (hereafter called John Ross, junior), surviving Trustees, original and assumed, of the deceased James Grierson, Esq. of Oggscastle, under his Trust-Disposition and Settlement dated twenty-second March, and recorded in the Books of Council and Session twenty-eighth May, both in the year eighteen hundred and seventy-two, and Deed of Assumption by the said Robert Paterson and John Ross in favour of the said Robert Noble Ramsay and John Ross, junior, dated the fourth day of February, in the year eighteen hundred and eighty, and recorded in said Books of Council and Session, twenty-fourth June, eighteen hundred and eighty-one; Whereas, by said Trust-Disposition and Settlement, the said James Grierson gave and disponed All and Sundry Lands, and other heritable and real estate, and all his moveable and personal estate, which should belong to him at the time of his death, to and in favour of Robert Grierson, Merchant in Leadhills; Archibald Kerr, Merchant in Liverpool (both of whom are now deceased); the said Robert Paterson and John Ross, and to such other person or persons as he should thereafter name, or as should be assumed in virtue of the powers therein contained, to act in the Trust thereby created, and to the acceptors or acceptor and survivors and last survivor of the persons thereby named, or to be named or assumed as aforesaid, as Trustees for executing the Trust thereby created, the majority of the said Trustees, whilst more than two accepting are alive and acting as Trustees, being always a quorum; That by said Trust-Disposition and Settlement the said James Grierson directed his Trustees, after payment of the legacies and provisions therein specified, and after his whole means and estate were realized and converted into money, to divide the residue into four equal shares, and to pay over and invest three of

said shares in manner therein directed, and with regard to the remaining share he thus provided: "Further, I direct my Trustees to invest the remaining fourth of said residue in such way and manner and on such security, heritable or personal, as they may deem proper, for the purpose of founding one or more Bursaries in the University of Edinburgh, and which shall be known and called 'The Grierson Bursaries,' the said bursaries to be in connection with the Faculties of Arts, Medicine, Law, and Divinity, as may from time to time be thought advisable; and I recommend to my Trustees to communicate with the Senatus Academicus of said University in order to arrange the details of said bursaries, and when said details are arranged to the satisfaction of my Trustees, I authorise and empower them to transfer said fourth of said residue to said Senatus Academicus, in order that said bursaries may be duly administered by them, declaring always that in bestowing said bursaries a preference shall be given to young men natives of the Parishes of Crawford and Leadhills;" That the said James Grierson died on the eighteenth day of May eighteen hundred and seventy-two, and the Trustees named in his said Trust Disposition and Settlement thereupon entered upon the possession and management of his means and estate, and after making payment of the legacies and provisions therein specified, they proceeded to realize the remainder of his means and estate, and as the same was from time to time realized, they at same time divided said residue into four equal shares, and paid or set aside the same for the respective beneficiaries, and in particular they set aside the following sums appertaining to said bursaries, so far as then realized, viz., in May 1873, £7200; in May 1874, £1170; in February 1878, £600; in October 1879, £250; and in February 1880, £225; and which sums, amounting to £9445, have been invested by said Trustees for behoof of said bursaries in manner aftermentioned; And whereas we have now realized the remainder of the said Trust Estate, and after paying to Mrs Janet Hunter or Grierson, the Truster's widow, the sum of £2021, 12s. 8d., being the value of her liferent interest in the Estate of Ogscastle, as ascertained by Messrs Macandrew and Blair, Actuaries, Edinburgh, and making other necessary disbursements in connection with the Trust Estate, conform to Vidimus thereof, copy whereof is hereto annexed, there remains, after deduction of legacy duty, the sum of £613, 18s. appertaining to said bursaries, and which sum, along with the five sums before enumerated, amounting in all to £10,061, 5s. 6d., constitutes a fourth equal share of the whole residue of the Trust Estate of the said James Grierson; And whereas, in order to utilize the said fourth share of said residue on its being from time to time realized, we entered into an interim arrangement with the said Senatus, whereby the said bursaries were instituted, and have been for some years in operation, and for the support of which we have given the said Senatus the interest accruing on said several sums, as the same were from time to time realized, and have continued to do so down to and inclusive of Whitsunday last, eighteen hundred and eighty-one; and now seeing

that the time has arrived for our divesting ourselves of the said fourth share of said residue, in terms of the instructions contained in the foresaid Trust-Disposition and Settlement; Therefore we hereby assign and convey to the Principal and whole other members of the Senatus Academicus of the University of Edinburgh, and their successors in office, for behoof of the said University, for the Foundation and Endowment of "The Grierson Bursaries" in the said University as aftermentioned (one-third of the said Senatus Academicus being a quorum, under the Act of Parliament 21 and 22 Victoria, chapter 83), and their assignees whomsoever: (First), A mortgage or debenture by the North British Railway Company, No. A/4024, dated the ninth day of November eighteen hundred and seventy-eight, and subscribed by George Robertson and George Harrison, two of the Directors, and by George Bradley Wieland, Secretary of said Company, in favour of the said Archibald Kerr, Robert Paterson, and John Ross, and the survivors and survivor of them, as Trustees foresaid, for the sum of £7800 sterling, with interest from the fifteenth day of May last, eighteen hundred and eighty-one; (Second), Another mortgage or debenture by the said North British Railway Company, No. A/4126, dated the tenth day of May eighteen hundred and seventy-nine, and subscribed by George Harrison and George Robertson, two of the Directors, and by George Bradley Wieland, Secretary of said Company, in favour of the said Archibald Kerr, Robert Paterson, and John Ross, and the survivors and survivor of them, as Trustees foresaid, for the sum of £1170 sterling, with interest from said fifteenth May eighteen hundred and eighty-one; (Third), A Mortgage or Deed of Assignment by the Trustees of the Port and Harbours of Greenock, No. 2132, dated the twenty-fifth day of October eighteen hundred and seventy-nine, and subscribed by Abram Lyle, D Shankland, and Edward Wilson, three of said Trustees, and by Thomas Wilson, Clerk to the Port and Harbours Trust of Greenock, in favour of the said Archibald Kerr, Robert Paterson, and John Ross, and the survivors or survivor of them, as Trustees foresaid, for £250 sterling, with interest from said fifteenth May eighteen hundred and eighty-one; and (Fourth), another Mortgage or Deed of Assignment by the said Trustees of the Port and Harbours of Greenock, No. 2400, dated twenty-second April eighteen hundred and eighty-one, and subscribed by Robert Shankland, J. D. Clink, and Kenneth M'Caskill, three of said Trustees, and by Thomas Wilson, clerk to the Port and Harbours Trust of Greenock, in favour of us, the said Robert Paterson, John Ross, Robert Noble Ramsay, and John Ross, junior, as Trustees foresaid, for £225, with interest from said fifteenth May eighteen hundred and eighty-one; and further, we have placed in the hands of John Cook, Writer to the Signet, the Factor of said Senatus Academicus, and for their behoof, the sum of £616, 5s. 6d. stg., which sum, along with those above assigned, amounts to the foresaid sum of £10,061, 5s. 6d.; but declaring always that we, as Trustees foresaid, in terms of the fore-

said Trust-Disposition and Settlement, do hereby mortify the foresaid sum of £10,061, 5s. 6d. stg. to and in favour of the said University of Edinburgh, and of the Principal and whole other members of the Senatus Academicus thereof, and of their successors in office, for behoof of the said University, for the foundation and endowment of bursaries in connection with the Faculties of Arts, Divinity, Law, and Medicine in said University, and which bursaries shall bear the name and be known as "The Grierson Bursaries;" and we hereby direct and appoint that the said bursaries shall be in the gift and appointment of the said Senatus Academicus and their successors in office as patrons thereof, and shall be held under and subject to the conditions and regulations following, videlicet:—First, the said bursaries shall consist of the free annual proceeds of said mortified fund, after deduction of all necessary expenses attending the management thereof, and which annual proceeds shall be divided amongst the four Faculties of Arts, Medicine, Law, and Divinity, in the proportions of one-fourth to each of the Faculties, or as nearly as may be. Second, that it shall be in the power of the said Senatus Academicus to determine from time to time the number, amount, and duration of said bursaries, but on this condition always that the annual proceeds of the foresaid sum of £10,061, 5s. 6d. shall not be applied to any other purpose whatever, but shall, minus the foresaid expenses of management, be entirely expended in maintaining said bursaries. Third, that in bestowing said bursaries, the Senatus Academicus shall be bound to give a preference to young men natives of the Parishes of Crawford and Leadhills, Lanarkshire, as aftermentioned. Fourth—Faculty of Arts—On application being lodged by a young man, native of either of said Parishes, with the Secretary of the Senatus, on or before a certain day in each year to be named by the Senatus, for one of said bursaries in connection with the Faculty of Arts, the said applicant, without undergoing a competitive examination with the other students, but on his passing a satisfactory examination in elementary Latin, English, and Arithmetic, and satisfying the Senatus that he is steady and well behaved, and has shewn himself a diligent scholar, and requires pecuniary aid to enable him to pursue his studies, shall be entitled to claim and receive said bursary; the bursary to be tenable during the period the bursar continues to follow the curriculum of Arts in said University, but not to exceed four years; in the event, however, of there being more than one such applicant, the examination shall be competitive amongst such applicants. Fifth—Faculty of Medicine—On a similar application being lodged by a young man, native of either of said Parishes, for one of said bursaries in connection with the Faculty of Medicine, on or before a certain day in each year to be named by the Senatus, such applicant, without undergoing any competitive examination, and on his satisfying the Senatus that he is proficient in those branches required of students prior to the commencement of their medical study, and that he requires pecuniary aid to enable him to pursue his sudies, shall be entitled to claim and receive said bursary, such

bursary to be tenable for four years ; in the event, however, of their being more than one such applicant, the examination shall be competitive amongst such applicants. Sixth—Faculty of Law—On a similar application being lodged by a young man, native of either of said Parishes, for one of said bursaries in connection with the Faculty of Law, on or before a certain day in each year to be named by the Senatus, such applicant, without undergoing any competitive examination, on his passing a satisfactory examination in elementary Latin, English, and Arithmetic, and satisfying the Senatus that he is steady and well behaved, and has shown himself to have been a diligent student, and that he requires pecuniary aid to enable him to pursue his studies, shall be entitled to claim and receive said bursary, the bursary to be tenable during the period the bursar attends the Lectures in connection with the Faculty of Law in said University, but not exceeding three years ; in the event, however, of there being more than one such applicant, the examination shall be competitive amongst such applicants. Seventh—Faculty of Divinity—On a similar application being lodged by a young man, native of either of said Parishes, for one of said bursaries in connection with the Faculty of Divinity, on or before a certain day in each year to be named by the Senatus, such applicant, without undergoing any competitive examination, on his satisfying the Senatus that he has been a diligent student in those subjects required to have been studied before entering the Divinity Hall, and that he is steady and well behaved, and that he requires pecuniary aid to enable him to pursue his studies, shall be entitled to claim and receive said bursary, the bursary to be tenable during the period the bursar attends the Theological Classes in said University, but not exceeding three years ; in the event, however, of there being more than one such applicant, the examination shall be competitive amongst such applicants. Eighth, it shall be incumbent on the Senatus to give yearly to the Ministers of said Parishes of Crawford and Leadhills, six weeks previous notice of the day on which the foresaid applications by natives of said Parishes require to be lodged, and that by transmitting to said Ministers written intimation specifying (1) amount of each bursary then vacant, (2) how long tenable, (3) the name of the faculty with which each bursary is connected, and (4) the latest day on which the application requires to be lodged with the Secretary of the University. Ninth, in the event it shall be found at the end of any session that any such bursar, appointed as aforesaid, has not prosecuted his studies with proper diligence, the Senatus shall be entitled to suspend payment of the bursary until satisfied of his improvement, or to withdraw the bursary in future sessions. And Lastly, the said Senatus Academicus and their successors in office shall have full power (with our concurrence as Trustees foresaid, so long as the said James Grierson's Trust exists, but at their sole discretion after said Trust is closed) to make such regulations from time to time as may be considered by them necessary or expedient for the administration of the fund hereby mortified, so as more effectually to carry out the benefits intended by

the said James Grierson in founding said bursaries, such regulations not to be inconsistent with the conditions herein above laid down; And it is hereby declared that the said Senatus and their successors shall have full power to retain the present investments of said mortified sum so long as they think proper, and to lay out and invest the said mortified sum or any part thereof from time to time on good and approved heritable security, or in the purchase of well secured feu-duties, or of debentures or debenture stock of well established lines of railway, or in the purchase of Government stock, or in such other way as the said Senatus and their foresaids may think proper, declaring that the said Senatus and their foresaids shall be in no way liable for the sufficiency or insufficiency of the security or securities on which the said sum or any part thereof is now or may be hereafter invested; and we consent to registration hereof for preservation.—IN WITNESS WHEREOF.

II.—ANDERSON BURSARIES.

I, Mrs HELEN ANDERSON or RONALD, wife of Alexander Ronald, teacher, Breck House, Shiel Park, Liverpool, with the special advice and consent of the said Alexander Ronald, for the regulation of the succession to my means and estate after my death, hereby convey, dispone, and make over to and in favour of the said Alexander Ronald, Ebenezer Morrison, writer in Stirling, and Robert Taylor, writer in Stirling, and the acceptors and acceptor and survivors and survivor of them, as trustees for the ends, uses, and purposes after mentioned, the whole means and estate, heritable and moveable, real and personal, of every description, and wherever situated, which shall be owing and belonging to me at the time of my death, with the titles, vouchers, and instructions thereof; And I hereby nominate and appoint the said Alexander Ronald, Ebenezer Morrison, and Robert Taylor, and the acceptors and acceptor and survivor of them, my sole executors and executor. But declaring that these presents are granted for the ends, uses, and purposes aftermentioned. . . . In the third place, I hereby direct my trustees, as soon as convenient after my death, and after the said Alexander Ronald's liferent shall terminate by death, or otherwise in the event of his surviving me, to realise and convert my estates into cash, and to pay over the free residue thereof to the Senatus of the University of Edinburgh for the time being, for the purpose of founding two bursaries for medical students attending the University of Edinburgh, on such conditions as the said Senatus shall think best—the principal being to be invested, and the interest expended upon the bursaries, and said bursaries to be called the "Anderson Bursaries;" And for carrying out the trust, I hereby give my said trustees all powers necessary, including power to sell by public roup or private bargain as they think best, and to invest the trust funds on such heritable or personal security as they think safe; also power to assume additional trustees

to act along with them or after their decease; And my trustees shall not be liable *singuli in solidum*, nor for omissions or neglect in management, nor for the sufficiency of the securities in which they may invest the trust funds, but only each for his own intromission and no farther, and to act honourably; I also empower my said trustees to employ one or more of their own number, or any other person or persons, to act as law-agent or factors for the trust hereby created, and to pay such law-agent or factor the usual professional fees and remuneration; and I hereby revoke all former settlements executed by me; And I dispense with the delivery hereof, and declare these presents shall be sufficient wherever found after my death; And I consent to registration for preservation.—IN WITNESS WHEREOF.

III.—STEVEN OF BELLAHOUSTON SCHOLARSHIP IN AGRICULTURE.

WE, Misses ELIZABETH STEVEN and GRACE STEVEN of Bellahouston, in the County of Lanark, having resolved to found and endow a Scholarship in connection with the Chair of Agriculture in the University of Edinburgh, for the advancement of the Science of Agriculture, in memory of our brother, the late Moses Steven, Esquire of Bellahouston aforesaid, who took an interest in the said Science of Agriculture, and who died at Edinburgh on the twenty-seventh day of July eighteen hundred and seventy-one, and having paid over the sum of £2000 sterling to the Senatus Academicus of the said University for the endowment of the said Scholarship, do hereby mortify the said sum to and in favour of the said University of Edinburgh, and of the Senatus Academicus thereof, and their successors in office, for the foundation and endowment of a Scholarship to bear the name of the "Steven of Bellahouston Scholarship" in connection with the Chair of Agriculture in the said University; And we hereby direct and appoint that the said Scholarship shall be in the gift and appointment of the said Senatus Academicus and their successors in office as patrons thereof, and shall be held under and subject to the conditions and regulations following, viz.:—First, the said Scholarship shall consist of the free annual income of the mortified fund, that is the income for one year after deduction of all necessary expenses attending the management of said fund, and shall be annually awarded to the student attending the Class of Agriculture in the said University, who, on an examination to be conducted by the Professor of Agriculture in the said University, along with two competent Examiners to be appointed by the Senatus Academicus of the said University, shall be considered the most deserving student of Agriculture for that year; but no student attending the said Class of Agriculture shall be eligible to hold the said Scholarship for more than one year; Second, That with the view of affording the scholar an opportunity of making himself acquainted with

the general state of the agriculture of different districts of his own country, and the advanced practices as evidenced by the exhibition of live stock and of improved implements and machines for farming purposes, he shall be required to visit personally the Annual Exhibitions of the four leading Agricultural Societies, or such of them as the Professor of Agriculture in the said University for the time being shall appoint, viz. :—The Royal Agricultural Society of England, the Bath and West of England Agricultural Society, the Highland and Agricultural Society of Scotland, and the Royal Agricultural Society of Ireland, and to furnish a report on the several departments of the respective Exhibitions, which report shall be sent for publication to the Agricultural Journals if approved of by the said Professor for the time being; Third, The first award of the said Scholarship shall be made at the end of the Winter Session, 1882-83 (eighteen hundred and eighty-two—eighty-three) and so forth yearly thereafter; and one moiety of the amount of the said Scholarship shall be paid to the student appointed to the same at the term of Whitsunday thereafter, and the remainder at the term of Martinmas thereafter, but the latter only upon production of a certificate by the Secretary of the said Senatus Academicus that the conditions of the Scholarship have been duly fulfilled; Fourth, If in any year none of the students attending the said class of Agriculture shall seem to the said Professor and the two Examiners aforesaid to be worthy of the Scholarship, then the vacant income of the mortified fund upon any such occasion, as well as any vacant income thereof otherwise arising at any time, shall be added to the capital of the mortification; and Lastly, The said Senatus Academicus and the Professor of Agriculture in the said University for the time being shall be entitled to make such further regulations from time to time as they may jointly consider desirable for the administration of the said Scholarship, or otherwise in connection therewith, for carrying out the object which we have in view in making the gift of said mortified fund to the said University for the foundation of said Scholarship; but such further regulations shall always be in accordance with the foregoing conditions and regulations; And we hereby declare that the said Senatus Academicus and their successors in office shall have full power to lay out and invest and also to re-invest from time to time the said mortified fund on good and approved heritable security, or in the purchase of well-secured feu-duties or ground-rents, or of debentures and debenture-stock of well-established lines of railway, or in the purchase of Government stock; declaring that the said Senatus Academicus and their foresaids shall be in no way liable for the sufficiency or insufficiency of the securities or investments on which the said mortified fund or any part thereof may at any time be invested; and we consent to registration hereof for preservation.—In Witness whereof, &c.

Dated 13th March 1882.

IV.—CHARLES MURCHISON SCHOLARSHIP.

TO ALL TO WHOM these Presents shall come: The Royal College of Physicians of London, incorporated by the Royal Charter of King Henry the Eighth, dated the twenty-third day of September One thousand five hundred and eighteen, and confirmed by the Statute of the fourteenth and fifteenth years of the same Reign, chapter 5 (hereinafter called the said College), and the University of Edinburgh, incorporated by Royal Charter of His Majesty James VI. of Scotland, in the year One thousand five hundred and eighty-two (hereinafter called the said University), send greeting: WHEREAS the late Charles Murchison, M.D., died on the twenty-third day of April One thousand eight hundred and seventy-nine: AND WHEREAS, at a General Meeting of the friends, colleagues, and pupils of the said Dr Murchison, held at Willis' Rooms, Saint James's, in the County of Middlesex, on the ninth day of June One thousand eight hundred and seventy-nine, it was determined that a Memorial of the said Dr Murchison should be established, which should consist of a Bust to be placed within Saint Thomas's Hospital in the County of Surrey, and of a Scholarship in Clinical Medicine, to be competed for alternately in London and Edinburgh: AND WHEREAS, at the said Meeting, the persons named in the Schedule hereto were appointed an Executive Committee to carry out the above-mentioned proposals: AND WHEREAS subscriptions were received for the above-mentioned purposes: AND WHEREAS the said Bust has been erected: AND WHEREAS the said Executive Committee has handed over the sum of Nine hundred and eighty-six pounds five shillings (being the residue of the moneys so received, and hereinafter called the Scholarship Fund) to the said College, to be by it invested under its Seal in the manner and for the purposes hereinafter mentioned: AND WHEREAS the said College has invested the said Scholarship Fund under its Seal, and the same is now represented by the sum of One thousand pounds new three per cent. annuities: AND WHEREAS the said Executive Committee, with the object of carrying out the said proposals, have resolved to the effect following, that is to say, Firstly, that the Scholarship so determined to be founded be called The Charles Murchison Scholarship. Secondly, that the Scholarship Fund remain invested under the Seal of the said College for ever. Thirdly, that the said Scholarship Fund may be invested by the said College as occasion may require in any of the public stocks or funds or Government securities of the United Kingdom, but in no other investments. Fourthly, that the said Scholarship be subject as provided in the tenth resolution hereinafter mentioned, awarded annually and alternately in London and Edinburgh, and that on each occasion the Examination be open to all those qualified to compete, whether from London or Edin-

burgh. Fifthly, that the first Examination be held in London in or about the month of April One thousand eight hundred and eighty-two. Sixthly, that the Examination shall be open to any Student of Medicine who has been a registered Medical Student during a period of not less than four nor more than six years at a Hospital in London or Edinburgh, recognised by the said College or the Medical Faculty of the said University, and whether holding a Medical qualification or not. Seventhly, that the Examination for the said Scholarship be conducted both orally and in writing, and when possible include (*a*) examination of patients with report on their cases, (*b*) questions on treatment and pathology, and (*c*) examination on specimens. Eighthly, that when the Examination is held in London, the Examiners shall be appointed by the said College, and when held in Edinburgh by the Medical Faculty of the said University. Ninthly, that subject hereto the regulations of the Examinations shall be framed as occasion may require by the said College, and by the Medical Faculty of the said University, according as the Examination is held in London or Edinburgh. Tenthly, that if the Examiners at any such Annual Examination report that no candidate has shewn sufficient merits to entitle him to receive the prize, the said College or the said University may withhold the prize, and the moneys so withheld shall at the next Annual Examination at which a competent candidate or candidates appear be applied either as an additional prize or as an increase to the prize to be awarded hereunder. And lastly, that whilst agreeing on the principle that the Examiners should be paid, the Executive Committee think that with the limited funds to be dealt with, it would not be desirable to set apart any portion of the money for this purpose, but that the said College and the said University may, notwithstanding, out of the income of the said trust funds make such reasonable remuneration of the Examiners to be appointed hereunder as may to them respectively seem proper: AND WHEREAS the said College has agreed with the said Executive Committee to hold the said Scholarship Fund and the Investments for the time being representing the same, and the annual income thereof, upon the trusts and conditions expressed in the said Resolutions of the said Executive Committee, NOW these Presents in pursuance of the premises WITNESS as follows: Firstly, the said College and the said University alternately in every alternate year will hold an Examination in London and Edinburgh respectively, for the Charles Murchison Scholarship, according to the conditions prescribed in the said Resolutions of the Executive Committee. Secondly, the said College will stand possessed of the said Scholarship Fund and the investments for the time being representing the same and the interest thereof, upon trust for the said Charles Murchison Scholarship, in manner following, that is to say, upon trust and subject to such payment of Examiners as aforesaid, and to the costs of administering the trusts hereof (if any), and to the tenth Resolution of the said Executive Committee hereinbefore contained to apply in every alternate year as aforesaid, the income of the said Scholarship Fund as

a prize to be given to the successful candidate in such London Examination as aforesaid ; and upon trust in every other alternate year to pay the income of the said Scholarship Fund, subject to such costs as aforesaid (if any), to the Principal and Secretary for the time being of the said University, or as they shall, for the purposes of the said Scholarship, direct. Thirdly, the said University will, subject to such payment of Examiners as aforesaid, and to the tenth resolution of the said Executive Committee hereinbefore contained, apply the money so received as a prize to be given to the successful candidate at such alternate Examination to be held by it in Edinburgh aforesaid.—In WITNESS WHEREOF, &c.

Executed in duplicate, dated 31st December 1881.

V.—REVISED SCHEME FOR THE GUNNING THEOLOGICAL SCHOLARSHIPS AND FELLOWSHIP.

1. Dr R. H. Gunning of Rio Janeiro assigned (in 1880) the sum of £200 annually for three Scholarships and a Fellowship (after payment of expenses), to encourage the study of the Natural Sciences among Students of Theology.

2. The SCHOLARSHIPS to be three in number, of the respective annual values of £40, £30, and £20.

3. Each Scholarship to be held for two years.

4. The Scholarships to be awarded for the second time, in May 1883.

5. The competition to be open to Students of all Scottish Churches holding the Confession of Faith without modification ; and the winners may prosecute their studies in Theology at any University or Divinity Hall under the sanction of the Church to which they respectively belong.

6. The Candidates to be examined in Natural History, Botany, and Geology, by the Professors of those subjects in the University of Edinburgh ; also in some department of Natural Theology or Christian Apologetics, having special reference to the connection between Religion and Science, by two Examiners to be appointed by the Faculty of Theology in the University of Edinburgh, it being understood that one of the Examiners shall be a member of the Faculty, and one a member of the Senatus of the New College. The book prescribed in Apologetics for 1883, Janet on Final Causes.

7. Each Candidate to produce evidence of his having attended a full curriculum in the Faculty of Arts of one or other of the Scottish Universities, and also a declaration that he is on the point of commencing the Theological studies enjoined by the Church to which he belongs.

8. If it shall appear to the Examiners that there are not Candidates

whose papers come up to a due standard of excellence, the Scholarship or Scholarships shall not be assigned; and the competition shall be renewed (other Candidates being admitted) six months subsequently.

9. The FELLOWSHIP to be of the value of £100 annually, to be held for two years, and the first competition to take place in May 1883.

10. The competition to be open to Students or Licentiates of all Scottish Churches holding the Confession of Faith without modification.

11. The Fellowship to be awarded after a senior examination in Natural History, Botany, Divinity, Geology, and by the Examiners mentioned above in Section 6, and on due certification of proficiency as Students of Theology. The book prescribed in Divinity for 1883 is Dorner's System of Christian Doctrine, Vols. I. and II. (English Translation).

12. The Fellowship not to be assigned if no competitor be found duly qualified; and the competition in that case to be renewed in six months (other Candidates being admitted).

13. Each holder of a Fellowship, at the close of his two years' occupancy, either to produce a Dissertation, or to deliver a few Lectures on some subject relative to the connection between the Scriptures and the Natural Sciences. The Faculty of Divinity and the three Professors of the Natural Sciences in the University of Edinburgh to decide whether the Dissertation is worthy of publication, or the Lectures of being publicly delivered.

14. This Endowment has been given for a period of nine years from May 1880; but with the provisions: (1.) That the Scheme may be altered by the donor; (2.) That it may be abandoned if it appears to the Senatus to prove unsuccessful; (3.) That it may be altered if thought fit by the Senatus, but only in such manner as may seem to render it more conducive to the study of Natural Sciences by Students of Theology.

15. The arrangements for the Examination to be conducted by the Dean of the Faculty of Divinity in the University.

Benefactors of the University.

THE Revenues of the University were scanty, and inadequate to the encouragement of the higher education and learning in the Scottish metropolis. Scholarships and Fellowships were unknown prior to those quite recently instituted, and the salaries attached to the Chairs are still generally inferior to those of the other Universities of Scotland.

During the early period of its history, the University received a considerable number of small donations and bequests, chiefly for Bursaries. Notices of these may be found in the preceding pages, in the Histories of the University by Bower and Dalzel, and in the Report of the Universities' Commissioners in 1830. A list of early Benefactors to the Library is given at p. 26.

By Act 1 and 2 Vict., cap. 55, the various sums of money mortified in the hands of the Town Council, for the support of the University, amounting to £13,119, were discharged, and an annual payment of £2500 (since reduced to £2170), secured upon the revenues of Leith Docks, is assigned to the University for the purposes of these bequests.

Within the present century, but especially within the last few years, several donations and bequests have been made for Bursaries, Scholarships, and Fellowships, and for the endowment of Chairs. As an increase of liberality for these and other academical purposes, such as the General University Library, may be looked for in the part of the century yet to come, it is proposed to preserve in the CALENDAR a record of the names of successive Benefactors, and the purpose of their benefactions.* The following list includes the chief Benefactors of the present century :—

* An Association exists for the purpose of promoting—1st, The Foundation of Scholarships and Fellowships for the encouragement of the higher learning among the more advanced Students; 2d, The better Endowment of existing Chairs; 3d, The Foundation of new Professorships; and 4th, Other University objects.

The Chancellor of the University is President of this Association; the Hon. Secretary is Archd. Campbell Swinton, Esq.; and the Acting Secretary is John Christison, Esq., W.S., 40 Moray Place, Edinburgh.

(A.)—*Founders of Bursaries in the present Century.*

Rev. J. STEWART, South Carolina—Founder of the Stewart Bursaries.

Sir JOHN M'PHERSON, late Governor-General of India—Founder of the M'Pherson Bursary.

Rev. R. BLAIR, D.D.—Founder of the Blair Bursaries in Arts and Theology.

J. STEWART HEPBURN, Esq. of Colquhalzie—Founder of three Theological Bursaries.

JOHN JAMIESON, Esq. Edinburgh—Founder of the Jamieson Bursary.

GEORGE PARKER BIDDER, Esq.—Founder of the Jardine Bursary.

WILLIAM LENNIE, Esq., Teacher, Edinburgh—Founder of the Lennie Bursaries.

JOHN BRUCE, Esq., Trinity Crescent, Edinburgh—Founder of the Bruce Bursaries.

M'DIARMID TESTIMONIAL TRUSTEES—Founders of the M'Diarmid Bursary.

W. PATRICK, Esq. of Roughwood—Founder of the Patrick Bursaries.

JAMES GRAY, Esq. of Baadpark—Founder of the Gray Bursaries.

EDINBURGH CAITHNESS ASSOCIATION—Founders of a Bursary.

EDINBURGH GALLOWAY ASSOCIATION—Founders of a Bursary.

AYRSHIRE CLUB—Founders of two Bursaries.

PEEBLES-SHIRE SOCIETY—Founders of a Bursary.

Dr ABERCROMBIE, Cape Town—Founder of a Bursary.

Mrs MARGT. TYNDALL BRUCE of Falkland—Founder of three Bursaries.

TRUSTEES of FRANCIS J. SCOTT, Esq. of Mount Lodge, Portobello—Founders of two Bursaries.

Miss HANNAH HARRISON of Lasswade—Founder of a Bursary.

Miss MARY ETTLES of Inverness—Founder of three Bursaries, and the "Ettles Medical Scholarship."

TRUSTEES of the Rev. JOHN SPENCE, Minister of Kinnaird—Founders of two Bursaries.

JOHN ROBERTSON SIBBALD, M.D.—Founder of Five Bursaries.

ARGYLLSHIRE, BUTE, and WESTERN ISLES ASSOCIATIONS—Founders of a Bursary.

SUBSCRIBERS to MEMORIAL to ROBERT STEWART, Esq. of Ardvoirlich—Founders of a Bursary.

THE EDINBURGH BORDER COUNTIES ASSOCIATION—Founders of two Bursaries.

THE RIGHT HON. THOMAS, EARL OF ZETLAND—Founder of the Orkney and Zetland Bursary.

TRUSTEES OF JAMES GRIERSON, OF OGSCASTLE—Founders of the Grierson Bursaries.

TRUSTEES OF DR MACKIE, OF LEITH—Founders of the Mackie Bursaries.

TRUSTEES of J. CAIRNS, Esq., W.S.—Founder of the Cairns Bursary.

TRUSTEES OF MRS JOHNSTONE of Harthope, Moffat—Founders of the Johnstone of Harthope Bursary,

TRUSTEES OF JAMES LAMBERT, Esq., Alloa—Founder of the Lambert Bursary.

ROBERT MARSHALL, Esq., Merchant, Edinburgh—Founder of the Marshall Bursary.

JOHN FOTHRINGHAM, Esq. of Heathpool—Founder of the Fothringham and Forrest Bursaries.

Right Hon. LAWRENCE, EARL OF ZETLAND—Founder of the Zetland Bursaries.

ANDREW THOMSON, M.D.—Founder of Eight Bursaries in Arts, Divinity, Law, and Medicine.

EDINBURGH EAST LOTHIAN ASSOCIATION—Founders of a Bursary in Arts.

EDINBURGH UNIVERSITY ENDOWMENT ASSOCIATION—Founders of Five Bursaries in Arts.

Mrs ISABELLA WEBSTER—Founder of the Webster Bursaries in Divinity.

Dr JOHN AITKEN CARLYLE—Founder of two Bursaries in the Faculty of Medicine.

Mrs ELIZABETH MACKENZIE—Founder of the Mackenzie Bursaries.

Dr JOHN MUIR—Founder of a Classical Bursary.

TRUSTEES OF MRS BARBARA MACAULAY OR MYLNE—Founders of a Bursary in Divinity.

TRUSTEES OF REV. JOHN PATTERSON—Founders of a Bursary in Anglo-Saxon Grammar and Literature.

THOMAS CARLYLE—Founder of the John Welsh Bursaries in Mathematics and Classics.

Mrs HELEN ANDERSON or RONALD, Liverpool—Founder of the Anderson Bursaries.

(B.)—*Founders of Scholarships or Fellowships in the present Century.*

THE PIT CLUB—Founders of two Scholarships, one in Arts and one in Divinity.

JAMES MACKENZIE, Esq., W.S.—Founder of the Mackenzie Scholarship.

ALEX. HENRY RHIND, Esq. of Sibster—Founder of the Rhind Scholarships and Bursaries.

Sir DAVID BAXTER, Bart., of Kilmaron—Founder of the Baxter Scholarships in Arts and Sciences.

Sir WILLIAM FETTES, Bart.—Founder of the Fettes Exhibitions and Fellowship.

JOHN MAXTON, Esq.—Founder of a Divinity Scholarship.

Miss ELIZABETH DRUMMOND—Founder of the Drummond Scholarship.

Mrs MARGARET TYNDALL BRUCE—Founder of three Scholarships.

JAMES GUTHRIE, Esq., of London—Founder of the Guthrie Fellowship.

SUBSCRIBERS to HAMILTON MEMORIAL FUND, and ASSOCIATION for the BETTER ENDOWMENT of the UNIVERSITY—Founders of a Philosophical Fellowship.

ASSOCIATION for the BETTER ENDOWMENT of the UNIVERSITY—Founders of a Classical Fellowship.

TRUSTEES of Dr J. H. GILCHRIST—Founders of three Scholarships for Natives of India.

JOHN ROBERTSON SIBBALD, M.D.—Founder of a Medical Scholarship.

Miss MARY BAXTER, of Balgavies—Founder of a Scholarship.

SUBSCRIBERS to FALCONER MEMORIAL FUND—Founders of a Fellowship.

SUBSCRIBERS to SYME FELLOWSHIP—Founders of a Fellowship in the Medical Faculty.

SUBSCRIBERS to GOODSIR MEMORIAL—Founders of a Prize and eventually a Fellowship in the Medical Faculty.

TRUSTEES OF Mrs. CHARLES MACLAREN—Founders of the Charles Maclaren Scholarship.

SUBSCRIBERS to GLOVER MEMORIAL FUND, and ASSOCIATION for the BETTER ENDOWMENT of the UNIVERSITY—Founders of the "Glover Divinity Scholarship."

Mrs M. ARNOTT, Widow of NEIL ARNOTT, M.D.—Founder of the "Neil Arnott Scholarship for Experimental Physics."

JOHN EDWARD BAXTER, Esq. of Craigtay, bequeathed the residue of his estate, out of which three Scholarships named after him have been founded by the Association for the Better Endowment of the University.

The Rev. DAVID AITKEN, D.D., formerly Minister of Minto—Founder of the Aitken Scholarship.

DAVID SKIRVING, Esq., of 13 Westbourne Park, London—Founder of the Skirving Scholarship for Moral Philosophy.

ANDREW THOMSON, M.D.—Founder of a Scholarship.

THE EDINBURGH UNIVERSITY ENDOWMENT ASSOCIATION—Founders of a Schloarship in Law.

Misses KIDD of Woodhouse—Founders of the David Kidd Divinity Scholarship.

Dr GUNNING of Rio Janeiro—Founder of two Scholarships and a Fellowship in the Faculty of Divinity.

DR T. LECKIE—Founder of the Leckie-Mactier Scholarship.

SUBSCRIBERS TO MEMORIAL OF DR COLDSTREAM—Founders of the Coldstream Memorial Medical Missionary Scholarship.

Mrs JAMES BUCHANAN—Founder of a Scholarship in Midwifery and Gynecology.

Dr ANDREW VANS DUNLOP, H.E.I.H.—Founder of the Vans Dunlop Scholarships in Arts, Law, and Medicine.

Misses STEVEN of Bellahouston—Founders of a Scholarship in Agriculture.

SUBSCRIBERS TO MEMORIAL OF DR CHARLES MURCHISON—Founders of the "Charles Murchison Scholarship."

(C.)—*Founders of New Chairs, Contributors of Endowments to existing Chairs, or of Money, &c., to the University Funds, Library, &c., within the present Century.*

General JOHN REID—Founder of the Theory of Music Chair, who also bequeathed money to the Funds of the University.

General Sir JOSEPH STRATON bequeathed money to the Funds of the University.

Sir JAMES ERSKINE, of Torry, bequeathed Pictures, Bronzes, and Marbles to the University. [Lent to the National Gallery.]

Sir WILLIAM PULTENEY—Founder of the Chair of Agriculture.

Dr WILLIAM THOMSON—Founder of the Thomsonian Lectureship in Mineralogy.

Dr THOMAS CHARLES HOPE, late Professor of Chemistry—Founder of the Hope Prize.

Sir GEORGE BALLINGALL, late Professor of Military Surgery—Presented his Library to the University.

Dr W. P. ALISON, late Professor of the Theory of Medicine—Presented his Medical Books to the University.

JOHN MUIR, D.C.L., LL.D., of Edinburgh—Founder of the Sanskrit Chair.

Mrs MARGARET TYNDALL BRUCE—Founder of Prize in Logic Class.

DANIEL ELLIS, Esq.—Founder of "The Ellis Prize" in the Faculty of Medicine.

JOHN EDWARD BAXTER, Esq., of Craigtay, bequeathed the reversion of his Estate for the purpose of founding Scholarships, etc.

Sir DAVID BAXTER, Bart., of Kilmaron—Founder of the Chair of Engineering.

David Cowan, Esq., of Auchendrane, bequeathed £1000 to the Association for Promoting the Endowment of the University.

Dr Neil Arnott gave £1000 for Promoting the Study of Experimental Physics among the Medical Students of the University.

Sir Roderick Impey Murchison gave £6000 for the Endowment of the Chair of Geology.

J. O. Halliwell, Esq., presented his valuable Shakespearean Collection to the University.

Robert Cox, Esq., W.S., bequeathed £5000 for general purposes and for completing the Dome of the University buildings.

Signor Theophile Bucher bequeathed his Music Library to the Chair of Music, and the reversion of his estate to found Scholarships in Music in the University.

The Merchant Company of Edinburgh, and other Governors of George Watson's and Daniel Stewart's Hospitals—Founders of the Chair of Political Economy and Commercial Law.

Mr Henry G. and Miss Frances Watson—Donors of Fund for the "Watson-Gordon Professorship of Fine Art"—the Deed of Foundation of which will be found in Calendar for 1873-74, p. 320.

Sir D. Baxter, of Kilmaron, bequeathed £20,000 for the Extension of the University buildings, and £20,000 for the Further Endowment of the Chairs in the Faculty of Arts.

Miss Brown, of Lanfine, presented a portion of the Minerals and Fossils which belonged to her father—to be called "The Waterhaugh Collection."

Rev. Hew Scott of Wester Anstruther—Founder of the Scott and Dunbar Prize in Greek.

John Wilson, Esq. of South Bantaskine—Founder of the Robert Wilson Prize in Chemistry.

Mrs E. Wightman—Founder of the Wightman Prize in Clinical Medicine.

The Bell Trustees, who gave £6000 for the Endowment of the Bell Chair of the Theory, History, and Practice of Education.

John B. Baillie, who transferred the collection of Arabic MSS., formed by Lieut.-Col. Baillie of Leys, to the University Library.

James George Beaney, Esq.—Founder of the Beaney Prize.

Andrew Robertson Cameron, M.D., of Richmond, New South Wales—Founder of the Cameron Prize.

Dr David Laing, bequeathed his MSS. to the Library of the University.

Mrs Hodgson, presented the Collection of Works on Political Economy, formed by her late husband, Professor Hodgson, to the University Library.

Dr VANS DUNLOP bequeathed £3000 to the General Fund of the University.

HENRY AINSLIE, Stirling, bequeathed £200 for the New University Buildings.

Dr STARK, Auchtermuchty, bequeathed £150 for the New University Buildings.

SUBSCRIBERS to the "UNIVERSITY OF EDINBURGH BUILDINGS EXTENSION SCHEME," by whom the sum of above £99,800 has been subscribed up to May 1878. *See* Appendix, No. XII.

Annual Salaries, &c.

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ANNUAL SALARIES (EXCLUSIVE OF CLASS FEES) ATTACHED TO THE OFFICE OF PRINCIPAL, AND TO THE PROFESSORSHIPS, ASSISTANTSHIPS, AND EXAMINERSHIPS IN THE UNIVERSITY, BY ORDINANCE OF UNIVERSITIES COMMISSIONERS AND SUBSEQUENT DEEDS OF FOUNDATION.

PRINCIPAL.

Salary, and Official Residence, - - £1200 0 0

FACULTY OF ARTS.

	Salaries of Professors.	Salaries of Assistants.	Allowances for Class Expenses.
Humanity	£247 10 0	£100 0 0	.....
Mathematics	258 6 8	100 0 0	.....
Greek	247 4 4	100 0 0	.....
Logic and Metaphysics	322 4 4	.....	.....
Moral Philosophy	322 4 4	.....	.....
Natural Philosophy	282 4 4	100 0 0	£100 0 0
Rhetoric and English Literature	280 0 0	.....	.....
History	170 0 0	.....	.....
Practical Astronomy	320 0 0*	.....	.....
Agriculture	370 0 0	.....	.....
Music	420 0 0	200 0 0	100 0 0
Sanskrit	450 0 0	.....	.....
Engineering	400 0 0	.....	31 0 0
Geology	420 0 0	.....	49 0 0
Political Economy	450 0 0	.....	50 0 0
Class Prizes in do.,	- - -	- - -	24 0 0
Education	210 0 0	.....	.....
Fine Art,	427 16 5	.....	40 0 0

FACULTY OF DIVINITY.

Divinity (present value)	£426 2 2	.....	.....
Hebrew	300 0 0	.....	.....
Church History	350 0 0	.....	.....
Biblical Criticism (present value)	630 0 0	.....	.....

* The Professor is also Astronomer Royal.

FACULTY OF LAW.

	Salaries of Professors.	Salaries of Assistants.	Allowances for Class Expenses
Public Law	£400 0 0	.....	.....
Civil Law	250 0 0	.....	.....
History	(See under Faculty of Arts.)		
Scots Law	100 0 0	.....	.....
Medical Jurisprudence	(See under Faculty of Medicine.)		
Conveyancing	105 0 0	.....	.....

FACULTY OF MEDICINE.

Botany	£200 0 0*	.....	.....
Institutes of Medicine	150 0 0	.....	.....
Practice of Physic	100 0 0	.....	.....
Anatomy	.....	.....	£200 0 0
Chemistry	200 0 0	£200 0 0	100 0 0
Midwifery	100 0 0	.....	.....
Natural History	195 15 $2\frac{2}{5}$	.....	.....
Materia Medica	100 0 0	25 0 0	50 0 0
Clinical Surgery	100 0 0	.....	.....
Medical Jurisprudence	100 0 0	25 0 0	35 0 0
Surgery	100 0 0	.....	.....
General Pathology	100 0 0	.....	.....

In addition to the permanent allowances for Assistants and Class Expenses entered above,—annual grants for the same purposes have for some time been made by the Senatus Academicus from the General University Fund. The amount for 1880-81 was :—

For Assistants,	£1055 0 0
For Class Expenses,	206 19 2
	£1,261 91 2

ADDITIONAL EXAMINERS FOR DEGREES

		Salaries.
In Arts	Classical Literature	£80 0 0
	Mental Philosophy	80 0 0
	Mathematics	80 0 0
In Medicine—13 Examinerships at £50 each,		650 0 0
In Divinity, two Examiners, each £21,		42 0 0
In Law, two Examiners, a share of Fees not to exceed £21 each,		42 0 0
In Science, one Examiner in Civil Engineering,		2 2 0

* This includes £100 formerly paid to the Regius Keeper of the Botanic Garden.

SUMMARY,
INCLUDING ANNUAL GRANTS BY SENATUS.

	Salaries.
Principal - - - - - -	£1,200 0 0
Chairs in the Four Faculties - - - -	9,604 7 9
Assistants - - - - - -	1,905 0 0
Examiners in Arts, Medicine, Divinity and Law -	976 2 0
Allowances for Class Expenses - - -	985 19 2
	£14,671 8 11

STATEMENT
SHOWING THE CAPITAL OF THE UNIVERSITY IN 1881, AND INCOME AND EXPENDITURE FOR THE YEAR 1880-81.

The University is maintained—1. By interest, &c., accruing from Capital Funds in charge of the Senatus Academicus; 2. by do. on a Fund in charge of the University Court; 3. by Annual Payments made from Crown and Parliamentary Grants, and from an annuity payable by Act of Parliament out of the Revenues of the Harbour and Docks of Leith; 4. by Matriculation, Graduation, and other Fees, paid annually; and 5. by annual payments by public bodies or private persons, and from Bursary Funds, of which neither principal nor interest is in the hands of the Senatus. The income derived from the last of these sources is omitted from the present Statement, because the Senatus have not hitherto been able to obtain the necessary information for determining its amount, having no control over these funds or the application of them. The total amount is believed to be upwards of £1600 annually.

A.—CAPITAL IN CHARGE OF THE SENATUS ACADEMICUS, INCLUDING FLOATING BALANCES.

As at 31st August 1881.

I.—DESTINED FOR SPECIAL PURPOSES BY DEED, STATUTE, OR ORDINANCE.

1. For Salaries of Professors, viz. :—	
(1.) Pulteney Foundation (Agricultural Chair) -	£1083 1 4
(2.) Thomson Foundation (4-5ths Nat. Hist. Chair)	1062 14 2
(3.) Muir Foundation (Sanskrit Chair) - -	7,031 5 6
(4.) Reid Foundation (Music Chair) - - -	12,000 0 0
(5.) Baxter Foundation (Engineering Chair) -	5,000 0 0
(6.) Murchison Foundation (Geology Chair) -	5,000 0 0
(7.) Watson Gordon Foundation (Fine Art Chair, to be afterwards instituted) - - -	11,103 15 11
(8.) Bell Foundation (Education Chair) - -	6,000 0 0
Carry forward	£48,280 16 11

	Brought forward				£48,280	16 11
(9.)	Chair of Commercial and Political Economy, and Mercantile Law (balance on hand), -				0	6 7
	TOTAL				£48,281	3 6
2.	For Class Expenses and Assistants :—					
(1.)	Reid Found. (Music Chair),	£8,500	0	0		
(2.)	Baxter Found. (Engineering Ch.)	1,000	8	6		
(3.)	Murchison Found. (Geology Ch.)	1,041	7	0		
(4.)	Thomson Foundation (1-5th Mineralogy), - -	265	13	6		
(5.)	Watson Gordon Foundation, not yet in operation, - -	1,102	18	4		
	TOTAL, -				11,910	7 4
3.	For Reid Commemoration Concert -	-		-	8,000	0 0
4A.	For Scholarships and Bursaries intrusted to Senatus:—					
(1.)	Macpherson Bursary - -	£3,034	1	11		
(2.)	Jardine Bursary - -	1,192	7	5		
(3.)	Shortt Bursary - -	266	18	10		
(4.)	Tarsappie Bursary - -	131	9	0		
(5.)	Pitt Scholarships - -	4,681	7	4		
(6.)	Sir David Baxter's Scholarships	6,847	13	2		
(7.)	Misses Baxter's Scholarships -	3,446	10	9		
(8.)	Mackenzie Scholarship -	3,114	17	4		
(9.)	Gray Scholarships - -	2,118	14	5		
(10.)	Bruce of Grangehill & Falkland's Scholarships and Bursaries	14,532	17	2		
(11.)	Guthrie Fellowship - -	2,528	6	6		
(12.)	Horsliehill Scott Bursaries -	2,061	5	11		
(13.)	Maxton Scholarship - -	1,197	12	11		
(14.)	Drummond Scholarship -	2,721	7	5		
	Do., For Examiners' Fees	275	5	3		
(15.)	Hamilton Scholarship -	2,645	11	0		
	Do., For Examiners' Fees	149	2	8		
(16.)	Ettles Divinity Scholarships -	2,660	10	4		
(17.)	Do. Medical Scholarship -	1,001	1	1		
(18.)	Harrison Bursary - -	960	8	8		
(19.)	Ardvoirlich Bursary - -	410	6	1		
(20.)	Shaw Fellowship - -	4,344	8	5		
(21.)	Falconer Fellowship - -	3,064	12	1		
	Do. For Examiners' Fees	128	3	0		
(22.)	Syme Fellowship - -	2,909	7	3		
	Do., For Examiners' Fees	263	10	4		
(23.)	Charles Maclaren Scholarship	2,648	18	2		
	Do., For Examiners' Fees	204	7	0		
	Carry forward,	£69,541	1	5	£68,191	10 10

* No Capital—Income derived from annual payment by governors of George Watson's and Daniel Stewart's Hospitals.

	Brought forward			£69,541	1	5	£68,191	10 10
(24.)	General Lang's Scholarship (ultimately £3000), *to account*			333	15	0		
(25.)	Neil Arnott Scholarship -			991	13	1		
(26.)	Cairns Bursary - -			527	17	2		
(27.)	Grierson Bursaries (*balance on hand*)*			94	17	11		
(28.)	Rhind Scholarships - -			4,995	19	7		
(29.)	Glover Scholarship - -			897	11	6		
(30.)	Aitken Scholarship - -			2,527	10	6		
(31.)	John Edward Baxter Scholarships			7,595	4	0		
	Do., For Examiner's Fees			354	18	9		
(32.)	Fotheringham & Forrest Bursaries			1,080	5	9		
(33.)	Johnston of Harthope Bursary			506	14	8		
(34.)	Marshall Bursary - -			1,011	14	4		
(35.)	Leith Harbour Annuity Fund—Accumulations of Arrears of Bursaries payable therefrom			689	4	11		
(36.)	David Kidd Divinity Bursary			1,033	0	2		
(37.)	Mackenzie Bursaries in Anatomy			1,004	18	6		
(38.)	Dr John Aitken Carlyle's Medical Bursaries - - - -			1,637	6	0		
(39.)	Leckie Mactier Fellowship, -			2,008	0	1		
(40.)	Webster Bursaries - -			4,044	4	7		
(41.)	Gunning Theological Scholarships and Fellowship (*Revenue on hand*)*			470	14	7		
(42.)	Cousin Fellowship, - -			458	19	6		
(43.)	Edinburgh University Endowment Association's Arts Bursaries			20	0	0		
(44.)	Vans Dunlop Scholarships -			43,620	3	8		
(45.)	The John Welsh Bursaries† -			50	13	7		
				£144,807	4	3		
4B.	For Prizes, Do. :—							
(1.)	Hope Prize -	£2,452	2 7					
(2.)	Neil Arnott Prize	1,036	16 3					
(3.)	Ellis Prize -	806	12 0					
(4.)	Muir Prizes in Sanskrit, and Comparative Philology *Capital applicable*	129	2 11					
(5.)	Scott & Dunbar Prize†	70	19 4					
(6.)	Wightman Prize	315	5 10					
(7.)	Robert Wilson Prize	250	0 0					
	Carry forward	£5,060	18 11	£144,807	4	3	£68,191	10 10

* Capital not in hands of Senatus.
† Balance on hand. Capital consists of land and houses, and is not included here.

Brought forward	£5,060 18 11	£144,807 4 3	£68,191 10 10	
(8.) Beaney Prize	1,000 0 0			
(9.) Cameron Prize	2,078 0 1			
(10.) Dobbie Smith Prize	150 0 0			
	£8,288 19 0			
(8.) Mackenzie Prizes, Deduct outlay	3 1 0			
		8,285 18 0		
TOTAL			153,782 7 3	
5. For Bursaries and Prize intrusted to individual Members of Senatus and others :—				
(1.) Dundas Bursaries		£1,049 7 8		
(2.) Patrick Bursaries		3,532 9 5		
(3.) Goodsir Prize		895 1 6		
TOTAL			5,476 18 7	
6. Principal's Official Residence			4,694 0 0	
7. For Completion of present College Buildings :— Robert Cox's Bequest, with interest			3,707 16 10	
8. Muir Lectureship Fund, *Capital applicable*			135 5 7	
9. Gilchrist Fund for purchase of apparatus			2,206 12 5	
			£238,194 11 6	

II.—CAPITAL, THE INCOME OF WHICH IS APPLICABLE FOR THE GENERAL PURPOSES OF THE UNIVERSITY.

(1.) Genl. Reid's Trust Fund, Balance after setting aside sufficient Capital to provide Income for Special Purposes as above	£20,000 0 0		
(2.) General Sir Joseph Straton's Trust Fund		14,140 18 5	
(3.) Robert Cox's Bequest		1,794 14 8	
			35,935 13 1

III.—DISPOSABLE CAPITAL BELONGING TO GENERAL UNIVERSITY FUND.

1. Heritable Securities		£19,400 3 10	
2. Balances in Bank, &c.		4,216 14 7	
Total Disposable Capital			23,616 18 5
Total Capital in charge of Senatus,			£297,747 3 0

B.—CAPITAL INVESTED IN NAME OF THE UNIVERSITY COURT.

SPECIALLY DESTINED BY DEED.

Baxter Fund, for further Endowment of the Chairs in the Faculty of Arts, excepting Engineering and Sanskrit,	£18,000 0 0
	£18,000 0 0

C.—INCOME OF THE UNIVERSITY DESTINED BY DEED, STATUTE, OR ORDINANCE, 1880-81.

1. For Salaries of Professors :—						
(1.) From Interest, &c., of Funds in Charge of the Senatus. See Statement of Capital, A. I. 1				£1,783	17	11
(2.) From Leith Harbour Annuity				1,083	0	0
(3.) From Parliamentary Grants prior to Universities Commisson				1,210	0	0
(4.) From Parliamentary Grants by Financial Ordinance of Universities Commission, and Sanskrit Chair Ordinance				3,104	0	0
(5.) From Parliamentary Grants since the Universities Commission				850	0	0
(6.) From Deanery of the Chapel Royal				900	0	0
(7.) From Land Revenues of the Crown				250	0	0
(8.) Foundation for Conveyancing Chair, paid yearly by Society of Clerks to H.M. Signet				105	0	0
(9.) From Funds of George Watson's and Daniel Stewart's Hospitals				376	12	11
(10.) From Interest of Fund in charge of University Court. See Statement of Capital, B. (Subject to deduction for Income-Tax and Expenses)				675	0	0
				£10,337	10	10
2. For Class Assistants and Class Expenses :—						
(1.) From Reid Fund for Music Chair. See Statement of Capital. A. I. 2	£300	0	0			
(2.) From the Gen. Univ. Fund, for the Chairs of Chemistry, Nat. Philosophy, Anatomy, Materia Medica, and Medical Jurisprd.	731	6	2			
(3.) From Foundation for Chair of Engineering	28	11	11			
(4.) From Murchison Foundation for Chair of Geology	39	0	0			
(5.) From Thomson Fund (Mineralogy), for Do.	8	14	4			
(6.) From New Parliamentary Grant for Class Assistants in Faculty of Arts	400	0	0			
(7.) From Funds of Geo. Watson's and Daniel Stewart's Hospitals for Chair of Commercial Economy	50	0	0			
(8.) From Watson Gordon Fund for Chair of Fine Art	37	10	0			
				1,595	2	5
Carry forward				£11,932	13	3

	Brought forward				£11,932	13 3
3. For Non-Professorial Examiners in Arts and Medicine, From New Parliamentary Grant					540	0 0
4. For Scholarships, Bursaries, and Prizes :—						
(1.) From Capital Funds in Charge of Senatus. See Statement of Capital, A. I. 4 and 5	£6,299	14	5			
(2.) From Leith Harbour Annuity	424	14	8			
(3.) From Funds of Geo. Watson's and Daniel Stewart's Hospitals for Chair of Commercial Economy	24	0	0			
					6,748	9 1
5. For Reid Commemoration Concert, from Reid Fund, See A. I. 3					300	0 0
6. For Completion of present College Buildings from Cox Fund. See A. I. 7					136	3 1
7. For Muir Lectures					3	14 9
8. For purchase of Scientific Apparatus from Gilchrist Fund					85	16 0
9. For Management of Special Funds from interest of Floating Balances					92	3 7
Total Destined Income,					£19,838	19 9

D.—TOTAL UNIVERSITY INCOME.

Destined Income as above				£19,838	19 9
General Fund Income, as below	£12,553	1	3		
Less Amount destined by Ordinance for Assistants and Class Expenses, entered above, C. 2 (2.)	731	6	2		
				11,821	15 1
Total University Income				£31,660	14 10

E.—INCOME AND EXPENDITURE OF GENERAL UNIVERSITY FUND, 1880-81.

I.—INCOME.

1. Matriculation Fees				£3,056	10 0
2. Graduation Fees, viz.:—					
(1.) Arts	£388	7	0		
(2.) Science	152	15	6		
(3.) Medicine	4,456	2	6		
(4.) Divinity	42	0	0		
(5.) Law	51	9	0		
				5,090	14 0
Carry forward				£8,147	4 0

	Brought forward			£8,147	4	0
4.	Fees of Registration of Members of General Council			320	10	0
5.	Fees of Admission to Library - - -			63	11	6
6.	Compensation for Stationers' Hall Privileges relinquished - - - -			575	0	0
7.	Grant from Government to Aid in Maintaining and Repairing Buildings - - -			500	0	0
8.	Interest of Invested Funds and Bank Accounts -			679	13	4
9.	From Funds bequeathed to the University for General Purposes, viz.:—					
	(1.) General Sir Joseph Straton's Bequest - - -	£531 19 2				
	(2.) Two-fifths of Robert Cox's Bequest	69 19 8				
				601	18	10
10.	From Funds partly appropriated to Special Purposes, the Surplus Revenues of which fall to the General University Fund, viz.:—					
	(1.) Leith Harbour Annuity Fund	£682 17 0				
	(2.) General Reid's Trust Fund -	880 1 6				
				1,562	18	6
11.	Miscellaneous Receipts :—					
	(1.) For authority to publish Calendar	£50 0 0				
	(2.) For use of Rooms for Meetings, &c.	32 0 0				
	(3.) Sundries - - -	20 5 1				
				102	5	1
	Total General Fund Income, - -			£12,553	1	3

II.—Expenditure.

I. General Administration :—

1. *University Court*—

(1.) Secretary's Salary - - - -			£102	10	5
(2.) Advertising for Examiners - - -			14	17	11
(3.) Printing, Stationery, and Incidents -			4	17	1
		£122	5	5	

2. *Senatus Academicus*—

(1.) Secretary's Salary - -	£248	19	4			
(2.) Clerk's Do. - -	183	1	4			
(3.) Dean of Medical Faculty's Do.	97	12	8			
(4.) Dean of Faculty of Arts' Do.	49	2	6			
Carry forward	£578	15	10	£122	5	5

	Brought forward	£578	15	10	£122	5 5
(5.)	Dean of Faculty of Divinity's Do.	29	5	9		
(6.)	Dean of Faculty of Law's Do.	29	5	9		
(7.)	Assistant Clerk's Do.	88	13	4		
(5.)	Incidents	171	19	11		
					898	0 7
3.	*General University Council*—					
(1.)	Secretary's Salary	£9	15	4		
(2.)	Fees to Registrar and Assistants	94	10	0		
(3.)	Meetings, Advs., &c.	33	15	5		
					138	0 9
4.	*Management*—					
(1.)	Factor's Salary	£213	13	11		
(2.)	Office Incidents, Stationery, &c.	18	4	3		
(3.)	Auditor's Fee	25	4	0		
(4.)	Law Agent's Account	157	15	8		
					414	17 10
5.	Editing *Calendar*				29	5 9
					1,602	10 4
II.	LIBRARY :—					
1.	Librarians' Salaries	£839	17	4		
2.	Books	898	7	8		
3.	Bookbinding,	162	9	6		
4.	Printing	43	11	9		
5.	Stationery	49	15	1		
6.	Freights, Postages, and Incidents,	17	5	0		
					2,011	6 4
III.	MUSEUMS AND TEACHING APPLIANCES :—					
1.	Anatomical Museum	£186	9	11		
2.	Botanical Museum	100	0	0		
3.	Natural Philosophy Do.	50	0	0		
4.	Midwifery Do.	15	0	0		
					351	9 11
IV.	BUILDINGS :—					
1.	Maintenance, Repairs, and Renewals, &c.	£681	12	8		
2.	Cleaning, Heating, Lighting	604	19	3		
	Carry forward	£1,286	11	11	£3,965	6 7

Brought forward	£1,286 11 11	£3,965 6 7
3. Public and Parochial Burdens and Feu Duty - -	281 3 5	
4. Insurances - - -	75 17 6	1,643 12 10
V. SERVICE :—		
1. Janitor - - -	£107 8 0	
2. Music Class Room Keeper -	30 0 0	
3. Warder and Servitors and their Dress, - - -	508 12 0	646 0 0
VI. CLASS ASSISTANTS AND CLASS EXPENSES :—		
1. Allocated by Commissioners' Ordinance - - -	£731 6 2	
2. Allocated since by Senatus -	1,261 19 2	1,993 5 4
VII. EXAMINERS :—		
1. Divinity - - -	£42 0 0	
2. Medicine - - -	350 0 0	
3. Arts - - - -	81 0 0	
4. Law - - - -	42 0 0	515 0 0
VIII. PRINTING AND ADVERTISEMENTS :		
1. Printing - - -	£194 10 0	
2. Advertisements - -	168 7 1	362 17 1
IX. MEDALS AND PRIZES :—		
1. Class Medals - - -	£89 4 0	
2. Class Prizes - - -	155 0 0	244 4 0
X. GRADUATION EXPENSES, M.D. Stamp Duty deducted		35 10 0
XI. INCIDENTAL GRANTS :—		
1. Athletic Club - -	£-10 10 0	
2. University Musical Association	10 0 0	
3. Sundries - - -	115 0 0	135 10 0
Total General Fund Expenditure -		£9,541 5 10
Surplus of Income - - -		3,011 15 5
Together, equal to Income - -		£12,553 1 3

The University Court.

ABSTRACT OF THE PROCEEDINGS OF THE UNIVERSITY COURT, FROM APRIL 1881 TO APRIL 1882.

MONDAY, 18TH JULY 1881.—*Reported:* That the consent of the Chancellor of the University had been received to the proposed alterations of Ordinances Nos. 8 and 23, with the object of rendering it compulsory on Graduates in Medicine in future to take the Degree of Master in Surgery as well as that of Bachelor of Medicine :—also, that the usual Report to Her Majesty in Council on the matter had been prepared and sent to the Council Office.

A copy of a similar proposed alteration of the Glasgow Medical Graduation Ordinance was received from the Council Office for Observations. It was agreed to reply that the Court saw no objections to the proposed alteration.

Copies of similar proposed alterations for the Universities of St Andrews and Aberdeen were received from the Courts of those Universities, and arrangements were made for disposing of them in the same way, should they be received from the Council Office for Observations.

Mr Alexander Macfarlane, D.Sc., was appointed to be the Additional Examiner in Mathematical Science in the University for three years from 1st October next.

Dr Sampson Gemmel was recognised as a Teacher of Medicine in Glasgow, whose course of lectures on Practice of Medicine should qualify for Graduation in Medicine in the University under Ordinance No. 8, section vi. (4).

Arrangements under which Dr Blair Cunynghame had been appointed to act as Examiner in Pathology at the July Examinations were approved.

Arrangements under which Professor H. Alleyne Nicholson had been

appointed to conduct the class of Natural History for Professor Sir Charles Wyville Thomson during the current session were approved.

Intimation of the resignation by Professor Mackay of the Professorship of History from the end of the current Summer Session was received from the Senatus. The Court concurred with the Senatus in accepting the resignation, and ordered intimation of the consequent vacancy to be made to the Curators of the Patronage of the University, and the Faculty of Advocates.

MONDAY, 17TH OCTOBER 1881.—*Reported:* That the proposed alterations of the Ordinances regulating Graduation in Medicine at St Andrews and Aberdeen, referred to above, had been received from the Council Office for Observations, and disposed of as ordered at last meeting.

On consideration of Section XVI. of the Universities Elections Amendment (Scotland) Act, it was resolved to fix the Fee for Registration in the General Council of the University at twenty shillings; and that such Fee should be payable, in the case of persons desiring to graduate, after they have successfully passed their final Examination for Graduation, and before they present themselves for Graduation.

On consideration of a Representation by the General Council of the University stating their "opinion that an Executive Commission should be appointed for further improvement of the Scottish Universities," it was resolved, without endorsing the conclusions of the Royal Commission appointed in 1876 to inquire into the Universities of Scotland, to represent to Her Majesty's Government the desirability of appointing an Executive Commission for the further improvement and regulation of the Universities of Scotland.

It was reported that the Committee appointed to dispose of the application of Mr D. J. Hamilton, M.B., for Recognition as a Teacher of Medicine in Edinburgh, whose lectures on Pathology should qualify for Graduation in Medicine, under Ordinance No. 8, sec. vi. (4), had directed Recognition to be issued in his favour.

Mr John Small, M.A., librarian of the University, and Mr David Lister Shand, W.S., were appointed to be the Assistant Registrars for the revisal, in December next, of the Register of the General Council for 1882.

Mr William Dittmar, Ph.D., was re-appointed to be the Additional Examiner in Chemistry for the year ending 30th December 1882.

It was ordered to be published that at the Stated Meeting in January the Court would proceed to the appointment of the Additional Examiners

in Surgery, Clinical Medicine, and Institutes of Medicine for the next period of office.

The appointment of the following Class Assistants for the current Session by their respective Professors was approved, namely:—C. J. Knott, D.Sc., assistant to the Professor of Natural Philosophy; W. Thomson, B.Sc., assistant to the Professor of Mathematics; and D. Cunningham, M.D., assistant to the Professor of Anatomy.

The Class Returns for 1880-81 were received from the Senatus, and remitted to a Committee.

MONDAY, 5TH DECEMBER 1881.—Mr Campbell Swinton took his seat as Chancellor's Assessor in succession to the late Lord Curriehill, and Professor Campbell Fraser took his seat on re-appointment as Assessor for the Senatus Academicus.

The following Resolution was adopted with regard to the late Lord Curriehill:—

"The Court resolve to record their sense of the heavy loss which they have sustained in the death of the Hon. Lord Curriehill, who for ten years sat at their board as Assessor for the Chancellor of the University, and who during that time was most assiduous in his attention to the business of the Court, and rendered the Court most valuable assistance by his calm and wise judgment upon all questions which came before them."

Mr Alexander S. Kinnear, Q.C., LL.D., Dean of Faculty, was appointed one of the Curators of Patronage of the University for three years from this date, in succession to the late Lord Curriehill.

A statement in support of the Representation to Government, agreed to at last meeting, in favour of the appointment of a new Executive Commission for the further improvement of the Universities of Scotland, was adopted and ordered to be sent to the Home Secretary.

On consideration of an application by Professor Sir C. Wyville Thomson for permission to retire from the Professorship of Natural History in the University on a retiring allowance, on the ground of ill-health, it was resolved to report to Her Majesty in Council that in the opinion of the Court permission should be granted accordingly.

A communication was received from Dr T. Lauder Brunton, intimating that he was unable to act as Additional Examiner in Materia Medica for the remainder of his term of office, owing to his engagements in London.

The appointment of the following Class Assistants by their respective Professors was approved, namely:—R. M. Morrison, D.Sc., and John Gibson, Ph.D., *Chemistry;* James Allan Gray, M.D., *Medical Jurisprudence;* W. Peterson, M.A., *Latin;* and George B. Gardiner, M.A., *Greek.*

The following Regulations were adopted regarding the Recognition of Courses of Instruction given by Extra-Academical Lecturers, as qualifying for Graduation in Medicine in the University under Ordinance No. 8 of the Scottish Universities Commissioners, 1858, section vi. (4):—

"1. Every Applicant for recognition shall furnish for the information of the Authorities of the University—(1) A Syllabus of his Course of Lectures. (2) A Statement of the number of Lectures, and of the number of Written or Oral Examinations in the Course. (3) A Statement of his opportunities of studying the Subject in which he desires recognition, and of the length of time devoted thereto. (4) A Statement of the experience he has had in teaching the Subject. (5) A Note of the Titles of his Contributions to the Science of the Subject. (6) A Statement as to whether his Course or Courses of Instruction have been already recognised by any University or other examining body, and if so, what means were adopted for ascertaining his qualifications for teaching.

"2. In the case of every Applicant for recognition residing in Edinburgh or its neighbourhood, an inspection shall be made of his teaching appliances and accommodation for teaching.

"3. Every recognised Extra-Academical Lecturer shall annually furnish the University with the information regarding his Course or Courses which is required from the University Professors as to—(1) The number of Students attending the recognised Course or Courses of Instruction. (2) The number of Meetings for Ordinary Class Work in the Session, and in each week thereof, excluding Meetings which fall under the next head. (3) The number of Special Written Examinations. (4) The system of conducting the Ordinary Class Work, and the number of Meetings devoted to each kind of Work.

"4. In the event of an Extra-Academical Lecturer removing from the premises or building occupied by him for teaching a recognised course, such Lecturer shall be required to intimate his removal to the University Court, in order that the Court may have an opportunity of considering whether the accommodation in the building to which he has removed is adapted for the purpose of teaching the Subject in which he was recognised.

"5. When application is made for the recognition of a Course taught by two or more Lecturers in conjunction, information shall be given of the share to be taken by each Lecturer in such a conjoined Course; and the recognition of such conjoined Courses, and of each of the Lecturers recognised as teachers of a conjoined Course, shall, *ipso facto*, terminate should one or more of the Lecturers cease to conduct the Course, or should any material change be made in the share of each Lecturer in the teaching of the conjoined Course.

"6. The recognition of any Lecturer who has ceased for the period of two consecutive Sessions to teach the subject on which he is recognised shall, *ipso facto*, terminate."

The following persons were recognised as Teachers of Medicine, whose lectures should qualify for Graduation in Medicine in the University, in terms of the said Ordinance No. 8, Sec. vi. (4):—(1) Thomas Carnelly, D.Sc., Lecturer on Chemistry, Sheffield; (2) John Wallace, M.D., Lecturer on Midwifery, Liverpool; and (3) Charles W. Cathcart, M.B., Lecturer on Anatomy and Teacher of Practical Anatomy, Edinburgh.

M'Gill University, Montreal, and certain of the Classes in Sir Josiah Mason's Science College, Birmingham, were recognised for purposes connected with Graduation in Science.

The Committee on the University Class Returns for 1880-81 gave in a report, and the Returns were ordered to be sent to the Senatus for preservation.

MONDAY, 20TH FEBRUARY 1882.—It was reported that the office of Assessor in the Court for the General Council of the University was vacant by the death of Sir Robert Christison, Bart.

The following resolution as to Sir Robert Christison was adopted:—

"The Court record with the deepest regret their sense of the loss which they have sustained by the death of their distinguished colleague Sir Robert Christison.

"Sir Robert was, immediately after the passing of the Universities (Scotland) Act, appointed by the Senatus Academicus their Assessor in the University Court, and continued by repeated re-elections to hold the office till his resignation of his Professorial Chair. He shortly afterwards returned to the Court as the Assessor nominated by the General Council, which position he occupied at the time of his death. His zealous discharge of the duties thus devolved on him was not the least

important of the many services which he rendered to the University, with which his name and fame will ever be associated. And none who have been privileged to be his colleagues can fail gratefully to acknowledge the benefit which their deliberations derived from his sound judgment, lengthened experience, and unrivalled acquaintance with Academic history and traditions."

There was laid before the Court an Order of her Majesty in Council, dated 19th December 1881, approving of the Court's Report in favour of Sir C. Wyville Thomson being allowed to retire from the Professorship of Natural History on a retiring allowance, and it was reported that the usual publication and intimations had been made as soon as the Order in Council was received.

There was laid before the Court an Order of her Majesty in Council, dated 19th December 1881, approving of the Court's Report in favour of (1) an Alteration of Ordinance No. 8, Edinburgh No. 3, for making it compulsory in future on Graduates in Medicine to take the Degree of Master in Surgery as well as that of Bachelor of Medicine; and (2) a relative Alteration of the Finance Ordinance No. 23, Edinburgh No. 5. It was reported that the usual publication and intimations had been made as soon as the Order in Council was received. The Secretary was instructed to transmit the Order in Council to the Senatus for preservation.

It was reported that no Registration Appeals had been received in connection with the Register of the General Council of the University for 1882.

The following appointments to vacant Additional Examinerships for Graduation in Medicine were made :—Dr Byrom Bramwell, F.R.C.P.E. Edinburgh, *Clinical Medicine;* Dr Sidney Coupland, F.R.C.P. Eng., London, *Pathology;* Dr J. D. Gillespie, F.R.C.S.E., Edinburgh, *Surgery;* Dr William Murrell, M.R.C.P. Eng., London, *Materia Medica;* and Dr Richard Caton, M.R.C.P. Eng., Liverpool, *Physiology.* These appointments were for the current year, but may be continued by annual re-appointment for five years.

The Additional Examiners in Anatomy, Practice of Physic, Clinical Surgery, Medical Jurisprudence, Midwifery, Botany, and Natural History, were re-appointed for the current year.

The University Accounts for 1880-81 were received from the Senatus, and remitted to a Committee.

The University Librarian's Report and Accounts for 1880-81 were received from the Senatus, and remitted to a Committee.

Arrangements under which the lectures on Scots Law were being delivered by Mr John Rankine, Advocate, were approved.

MONDAY, 10TH APRIL 1882.—The Court concurred with the Senatus in accepting Professor Archibald Geikie's resignation of the Chair of Geology from 15th May next, and ordered the vacancy thereby caused to be intimated to the Home Secretary.

On further consideration of the Representation of the General Council in favour of an assimilation of the system of election of Chancellors and Assessors by the Council to that for the election of Members of Parliament under the Universities Elections Amendment (Scotland) Act, 1881, it was resolved to intimate to the Council that the Court were of opinion that it would not be desirable at present to apply for any further alteration of Ordinance No. 11, sec. ix., than an extension of the time within which voting papers should be issued by the Registrar, and that the Court had resolved to apply to Her Majesty in Council for an alteration of the said section, applicable to the University of Edinburgh only, under which the Registrar would be required to issue voting papers as soon as he conveniently could, and not later than six clear days (exclusive of Sundays) after the meeting at which a Poll may be demanded.

The Committee on the University Librarian's report for 1880-81 gave in a Report, which was approved.

Professor W. A. Herdman, D.Sc., University College, Liverpool, was recognised as a Teacher of Medicine, whose lectures on Natural History should qualify for Graduation in Medicine in the University, in terms of Ordinance No. 8, sec. vi. (4).

Advertisement was ordered to be made of the Court's intention to proceed to the appointment of the Additional Examiner in Classics for the next period of office at their stated meeting in July.

In connection with a rearrangement of the Practical Natural Philosophy classes, the fee for the class of Practical Physics was fixed at £3, 3s., and that for study in the Physical Laboratory at £6, 6s., for the Winter Session, or corresponding period, except in the case of Students attending the class of Practical Physics in the same Winter Session, for whom the fee for study in the Physical Laboratory was fixed at £4, 4s.

Arrangements under which, owing to the illness of Professor Blackie, the Greek classes had been conducted by the Principal and Mr Gardiner for three weeks, were approved.

Arrangements under which Dr R. H. Traquair was appointed to act as Examiner in Natural History at the April Examinations, owing to the vacancy in the Professorship, were approved.

On the recommendation of the Senatus the "Schools Examinations" of Oxford and Cambridge Universities were recognised as exempting Candidates for Graduation in Medicine from the Examinations preliminary to entrance on Medical Study.

On the recommendation of the Senatus, it was resolved to apply to Her Majesty in Council for approval of an Alteration of Ordinance No. 5, Edinburgh No. 2, under which attendance on the Practical classes of Physiology, Pathology, and Materia Medica would be made imperative; the instruction accepted as equivalent to a Course of Practical Materia Medica would in future be Apprenticeship for not less than two years in compounding and dispensing drugs under a Registered Medical Practitioner, or a Member of the Pharmaceutical Society of Great Britain; the position of Practical Midwifery instruction in the Regulations would be altered; and the number of Subjects in which Extra Academic teaching might be taken would be increased from four to five; these alterations to apply to Students who commence their medical studies after Session 1881-82.*

On the recommendation of the Senatus, it was resolved to agree to the discontinuance of the fee of £1, 1s., which the Professors of Clinical Medicine were authorised to charge for their Tutorial class. The authority to charge the fee was accordingly cancelled.

The appointment by the Professor of Anatomy of Mr Arthur Thomson, M.B., as his Principal Demonstrator, in succession to Dr D. J. Cunningham, now Professor of Anatomy in the Royal College of Surgeons in Dublin, was approved.

* Under authority of the Lord Rector this matter was subsequently deferred for reconsideration.

Appendix.

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I.—UNIVERSITY LOCAL EXAMINATIONS.

[*These Examinations have been instituted to supply a common test of attainment both for pupils of public schools and for those privately educated.*]

REGULATIONS FOR 1883.

The Examinations will commence on Tuesday, June 12, 1883, *at* 9 A.M., *and will be continued for three days.*

The BOARD grants Local Examination Certificates of two grades,—JUNIOR and SENIOR Certificates. These Certificates are signed by the Vice-Chancellor of the University, and specify the subjects in which candidates have passed.

The subjects of examination are divided into three classes,—PRELIMINARY SUBJECTS, to be taken by all Candidates; SPECIAL SUBJECTS, from which all Candidates must make a selection; and EXTRA SUBJECTS, in which any Candidate may volunteer.

I.—PRELIMINARY SUBJECTS,

In which all Candidates must undergo Examination.

1. *English.*—Reading aloud, with proper accent and emphasis. Writing from Dictation. The elements of English Grammar and analysis: this will be tested by the parsing and analysis of one or more sentences of Prose. The *analysis* will be limited to pointing out the number of clauses in a sentence, the relations of principal and subordinate clauses, and distinguishing Subject, Predicate, and Object in each clause. English Composition.

2. *History and Geography.*—(*a*) History of Great Britain from 1540 to 1688. (*b*) The General Geography of Europe. Only the principal capes, mountains, rivers, and towns required (but in Great Britain and Ireland the counties, county towns, and principal centres of industry also). Outline map of Great Britain to be filled up to the extent of the above requirements.

*3. *Latin.*—Grammar; Cornelius Nepos (the lives in White's "Grammar School Texts,") and thorough parsing of the same.

* This subject will be optional for Female Candidates, except when Latin is taken as a Special Subject.

4. *Arithmetic, including Fractions Vulgar and Decimal.*

5. *Scripture History.*—Joshua, and the Gospel according to St Matthew.

No. 5 will not be required when parents or guardians request that it be omitted.

N.B.—The Preliminary Certificates of Glasgow, St Andrews, Oxford, and Cambridge, and the Government Admission Examination in Training Colleges, are accepted instead of the above Examination, but the full fee must be paid.

II.—JUNIOR CERTIFICATE.*

At least *two*, and not more than *four* of the following subjects are to be selected by the Candidate. The selection must be made from at least two of the Departments A, B, C.

Department A.

1. *Latin.*—A passage for translation into English, with grammatical and general questions. (Cæsar, *De Bello Gallico*, B. II., and *Selections from Ovid's Fasti and Epistles* in White's "Grammar School Texts.")

An easy passage of English, with the more uncommon Latin words supplied, for translation into Latin. [Special importance is attached to this exercise, and to the grammatical questions on the passages given for translation into English.]

2. *Greek.*—A passage for translation into English, with grammatical and general questions. (Xenophon's *Anabasis*, II., in White's "Grammar School Texts.")

3. *French.* — Prosper Merimée's Colomba, for translation into English, with questions on the accidence of French grammar and parsing.

An easy English passage for translation into French.

4. *German.*—"First German Reader," Low's Series, for translation into English, with questions on the accidence of German grammar.

An easy English passage for translation into German.

Department B.

1. *English.*—Goldsmith's "Traveller," and "Deserted Village;" Addison's "Sir Roger de Coverley," and Macaulay's "Clive." Parsing, analysis, and questions in Grammar. Also History of English Literature from 1580 to 1688.

2. *History and Geography.*—(*a*) History of Scotland and England from 1540 to 1688. (*b.*) Europe as in Preliminary examination, *and*

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* This Certificate is recommended by the Medical Council to the Licensing Board as a sufficient test of Preliminary Education, provided the Candidate has taken the subjects named in the fourth of the Council's recommendations. It is accepted also by the Pharmaceutical Society of Great Britain in lieu of Preliminary Examinations; provided English, Latin, and Arithmetic are included.

the Geography of the British Islands in more detail, including general, physical, and industrial features (Outline Map of British Isles to be filled up); *or alternatively* with British Isles, France, Germany, and Austria (Outline Maps to be filled up).

3. *Scripture History.*—Judges, Ruth, and 1 Samuel : Acts of Apostles.

DEPARTMENT C.

1. *Mathematics.*—Arithmetic. Euclid, Books i., ii., or their equivalent. The Elements of Algebra, as far as Simple Equations inclusive.

2. *Natural Philosophy.*—The properties of Matter. The Laws of Motion. The Parallelogram of Forces and the Mechanical Powers.

A general knowledge of the earth's dimensions and figure; the cause of the seasons; the distances, motions, and physical character of the heavenly bodies.

Such information may be gained from Balfour Stewart's *Lessons in Elementary Physics*, and Norman Lockyer's *Elementary Lessons in Astronomy.*

3. *Physical Geography.*—The Atmosphere, its composition, temperature, moisture, and movements. The Sea, its distribution, temperature, and movements. The Land, its form, volcanoes, movements; the circulation of water over its surface. Life : some of the leading features in the distribution of plants and animals over the globe. Geikie's *Elementary Lessons in Physical Geography.*

EXTRA SUBJECTS,

In which Candidates may volunteer for examination. The values obtained in these will be acknowledged on the certificate granted, but not added to the Candidate's aggregate marks in the competition.

A.—DEPARTMENT OF DRAWING.

Drawing in Outline from the Flat.

B.—DEPARTMENT OF MUSIC.

The Grammar of Music.

III.—SENIOR CERTIFICATE.*

At least *two*, and not more than *four* of the following subjects are to be selected by the Candidate. The selection must be made from at least two of the Departments A, B, C, and D.

DEPARTMENT A.

1. *Latin.*—A paper consisting of, 1st, a passage of plain English to be translated into Latin; 2nd, four short and plain passages, such as the Candidate might, without previous preparation in them, be expected to

* This Certificate is recommended by the Medical Council to the Licensing Board as a sufficient test of Preliminary Education, provided the Candidate has taken the subjects named in the fourth of the Council's recommendations. It is accepted also by the Pharmaceutical Society of Great Britain in lieu of Preliminary Examination, provided English, Latin, and Arithmetic are included.

translate, two of these, at the choice of the Candidate, to be translated into English [the passages selected are generally taken from one or more of the following authors—Virgil, Horace, Ovid, Cicero, and Livy]; and 3d, grammatical questions, either arising out of the passages, or general.

2. *Greek.*—A paper including grammatical and general questions; the translation of an easy passage of Greek prose; and the translation of a few English sentences into Greek.

3. *French.*—*Ad aperturam* translation and retranslation, with questions on the accidence and syntax of French grammar, and the history of French literature (Schneider's "Biographie des Écrivains Français" and Masson's "Introduction to the History of French Literature" recommended).

4. *German.*—*Ad aperturam* translation and retranslation, with questions on the accidence and syntax of German grammar, and the history of German literature (Selss' "Outline of the Literature of Germany" and G. Weber's "Geschichte der deutschen Literatur" recommended).

DEPARTMENT B.

1. *English.*—Composition; Parsing and Analysis of a passage in prose or verse; Grammatical Questions, including Derivation of Words and Prosody; History of English Literature from 1580 to 1688, more fully than for the Junior Certificate; Shakespeare's "Merchant of Venice;" and Chaucer's "Squiere's Tale;" also Bacon's Essays "Of Travel, Despatch, Friendship, Discourse, Masks and Triumphs, Custom and Education, Studies."

2. *History and Geography.*—(*a*) General History of Europe from 1688 to 1790. [*The Candidate is expected to know the Geography of the History.*] (*b*) Geography of North America (Outline Map to be filled up); *or* Europe, with outline maps of Italy and the German Empire.

3. *Logic.*—Jevons's *Elementary Lessons in Logic* (Macmillan and Co.)

4. *Bible Knowledge.*—Conder's "The Holy Land," Part I., Chaps. v., vi., ix., and Part II., Chaps. i., iii., vi., viii.

DEPARTMENT C.

1. *Mathematics.*—Arithmetic. Euclid, Books i.-iv. and vi., or their equivalent. Algebra to Quadratic Equations inclusive. Plane Trigonometry.

2. *Natural Philosophy.*—Elements of *Mechanics* and of *Experimental Physics.* (Balfour Stewart's *Lessons in Elementary Physics;* and Blaikie's *Elements of Dynamics,* or Thomson and Tait's *Elements of Natural Philosophy.*)

DEPARTMENT D.

1. *Chemistry.*—The relations to one another of Acids, Bases, Salts, and Metals—Oxidation and Reduction. The physical characters, methods of preparation and chemical characters of the following non-metallic elements and their chief compounds:—Oxygen, Hydrogen, Nitrogen, Carbon, Sulphur, Phosphorus, Chlorine, Bromine, Iodine, Silicon.

The oxides and salts of the following metals:—Potassium, Sodium, Barium, Calcium, Magnesium, Iron, Zinc, Manganese, Chromium, Aluminium, Cobalt, Nickel, Copper, Mercury, Lead, Silver, Gold, Platinum, Tin, Arsenic, Antimony, Bismuth.

The following text-books are referred to as indicating the amount and kind of knowledge expected:—Roscoe's *Lessons in Elementary Chemistry*, Lessons I.-XXVI.; Williamson's *Chemistry for Students*, Chaps. i.-xxxiii.; Wilson's *Inorganic Chemistry* (Chambers's Educational Course); Brown's *Chemistry* (Chambers's Elementary Science Manuals).

2. *Zoology.*—The general principles of Zoological Classification. The characters of the Classes of the Vertebrata, founded upon Anatomical and Physiological characters. The general characters of the Vertebrate Orders. The Morphological, Anatomical, and Physiological characters of the sub-kingdoms of the Invertebrata, and the general characters of the Invertebrate Orders. Dr Stirling's Zoology, in *Chambers's Information for the People*, and Dr Alleyne Nicholson's *Manual of Zoology*.

3. *Botany.*—Botanical organography. Functions of leaves and flowers. Process of fertilization in flowering and in flowerless plants. Natural orders Ranunculaceæ, Cruciferæ, Caryophyllaceæ, Malvaceæ, Leguminosæ, Rosaceæ, Umbelliferæ, Compositæ, Labiatæ Scrophulariaceæ, Liliaceæ, and Cyperaceæ and Gramineae. (Balfour's *Elements of Botany*).

4. *Physiology.*—The structure and functions of the tissues of the body,—namely, epithelium, fibrous tissues, cartilage, bone, muscle, nerve fibres, and nerve cells. The structure and function of the heart and blood vessels. The circulation of the blood. The structure and function of the blood corpuscles. The composition of the blood and its changes in the capillaries of the lungs, and in those of the system generally. The structure of the lungs, the mechanism by which the air is moved into and out of the lungs during ordinary respiration. The changes of the air during respiration. Food, mastication, secretion and functions of saliva, deglutition. Secretion and functions of the gastric juice, bile, pancreatic and intestinal juices. Matters absorbed from stomach and intestine by radicles of portal vein and lacteals. The glucogenic function of the liver. The functions of the lymphatic system. The functions of skin and kidneys. The nature of reflex action. The functions of the two roots of a spinal nerve. The functions of the spinal cord, medulla oblongata, and convolutions of the cerebrum. A general knowledge of the structure and functions of the parts concerned in sight, hearing, smell, taste, and touch. Works recommended:—Newton's *Animal Physiology;* Huxley's *Lessons in Physiology*.

5. *Geology*—Composition, structure, and origin of the more important kinds of Rocks. Structure of the Earth's Crust. Origin of Mountains, Tablelands, and Valleys. The Geological History of the Earth; leading characters of Palaeozoic, Mesozoic, and Cainozoic Periods. (Geikie's *Elementary Lessons in Physical Geography;* Jukes' *School Class-Book of Geology*.)

EXTRA SUBJECTS,

In which Candidates may volunteer for Examination, the values obtained being acknowledged in the Certificate granted, but not added to the Candidate's aggregate marks.

A.—Department of Drawing.

(*a.*) Shading or Painting from a Model, in Chalk, Sepia, or Colour.
(*b.*) Model Drawing.
(Candidates should prepare for this examination by drawing ordinary household objects.)
(*c.*) Perspective.
(A good elementary work on the subject should be studied.)
Also "Classic and Italian Painting" in Poynter's Art Series.

B.—Department of Music.

The Grammar of Music and Harmony.

Privileges attaching to the Senior Certificates.

1. This Certificate, in case of indicating that the holder has passed in Latin, Greek, and Mathematics, may be presented by a Student at the time of his entrance to the University, and will be accepted by the Professors in the Faculty of Arts as evidence of qualification to attend the higher classes in these subjects. The holder will thus have the advantage of entering for the *Curriculum of Three Sessions in Arts without further examination.*

N.B.—The Senior Certificate thus constitutes a recognised *Schools Leaving Certificate.*

2. By a Regulation of the General Medical Council, Certificates granted at the Edinburgh University Local Examinations are sufficient to secure exemption, for such subjects as are mentioned in the Certificate, from the Medical Preliminary Examinations in any University or Medical School in the United Kingdom.

3. Ladies who hold the Senior certificate are exempted from the Entrance Examination for Girton College, Cambridge.

LOCAL EXAMINATION BURSARIES (Competition of 1883).

A. Bursaries offered through the Edinburgh Association for the University Education of Women, June 1883.

For Girls only.

(*To be held on condition of studying for the Edinburgh University Certificate in Arts for Women.*)

For Candidates taking Senior Subjects.

*1. £50 for one year, the gift of Miss Dundas, to be won by the best of the Candidates who take Honours in three subjects, one of which must be Latin or Mathematics. (*In either of the two last a standard of 70 per cent. must be attained.*) The Candidate must be the holder of no other Bursary, and must have received no part of her education in Edinburgh or Glasgow.

*2. £15 per annum for two years, the Crudelius Bursary, to be won by the Candidate who, being the holder of no other Bursary, receives the highest marks in Mathematics, on condition of her engaging to study for an Honours University Certificate in Mathematics.

*3. £10 for one year, the gift of the Association, to be won by the Candidate who, being the holder of no other Bursary, takes the highest number of marks in three Special Subjects.

B. Bursaries Offered through the Committee of the St George's Hall Classes.

I. *For Oral and Corresponding Students of the St George's Hall Classes.*

For Girls only.

1. A Bursary of £20 to the Girl (holder of no other Bursary) who takes the highest marks, not under an average of 75 per cent., in *three* Senior Subjects, including Latin or Mathematics, and agrees to continue her studies in a way approved by the Committee.

2. A Bursary of £10, offered by the Students of the St George's Hall Classes, to the Girl (holder of no other Bursary) who takes the highest marks, not under an average of 75 per cent., in *three* Junior Subjects, including Latin or Mathematics, and agrees to study for the Senior Certificate.

Competitors for the above Bursaries must have studied two of the Subjects in the St George's Hall Classes, during the session 1882-83, for the entire course of the time in which instruction is given in those they may select.

The M'Glashan Memorial Bursary of £5, tenable for two years, to the Girl (member of the Winter or Spring Preliminary Class in 1882-83, and holder of no other Bursary), who takes the highest marks, not under an average of 70 per cent., in the Preliminary Subjects, including Latin and Scripture.

The winner, if over eighteen years of age, must agree to study for the Senior Certificate; but, if under eighteen, she may agree to study either for the Junior or the Senior Certificate. Candidates taking Special Subjects are not eligible for this Bursary.

For Boys only.

1. A Bursary of £5 to the Boy (member of the Junior Latin and Mathematical Classes during the entire course of the session 1882-83,

* Payable when tickets are taken for the Association Classes in November 1883.

and holder of no other Bursary), who takes the highest marks, not under 75 per cent., in either of these Subjects, and agrees to study for the Senior Certificate, or to continue his studies in any other way approved by the Committee.

2. A Bursary of £5 to the Boy (member of the Junior French and German Classes during the entire course of the session 1882-83, and holder of no other Bursary), who takes the highest marks, not under 75 per cent., in either of these Subjects, and agrees to study for the Senior Certificate, or to continue his studies in any other way approved by the Committee.

3. A Bursary of £5 to the Boy (member of the Winter or Spring Preliminary Class in 1882-83, and holder of no other Bursary), who takes the highest marks, not under an average of 70 per cent., in the Preliminary Subjects, including Scripture, and agrees to study for the Junior or the Senior Certificate. Candidates taking Special Subjects are not eligible for this Bursary.

II. *For the Pupils of Ladies' Schools in Country Districts.*

1. A Bursary of £20 is offered to the Girl (holder of no other Bursary) who, having passed in the Preliminary Subjects, including Latin and Scripture, takes the highest marks, not under an average of 75 per cent., in *three* Junior Subjects, one of which must be Latin or Mathematics, and who agrees to continue her studies in a way approved of by the Committee.

Candidates for this Bursary may have previously passed in the Preliminary Subjects or they may pass in 1883.

2. A Bursary of £5 is offered to the Girl who takes the highest marks, not under an average of 70 per cent., in Preliminary Subjects, including Latin and Scripture, and agrees to study for the Junior or Senior Certificate. Candidates taking Special Subjects are not eligible for this Bursary.

3. A Bursary of £5 is offered to the Girl, under sixteen years of age in June 1883, who, passing in Preliminary Subjects, including Scripture, takes the highest marks, not under 75 per cent., in Arithmetic, and agrees to study for the Junior or Senior Certificate. Candidates taking Special Subjects are not eligible for this Bursary.

School Mistresses, intending to present Candidates for these Bursaries, must intimate their intention to the Secretary of the St George's Hall Classes before 1st April 1883.

All particulars relating to the above Bursaries may be obtained on application to the Secretary, St George's Hall Classes, Randolph Place, Edinburgh.

C. Bursary offered by the Local Examinations Board.

A Bursary of £6, 6s. for one year to the Boy standing highest in the Senior Examination, and holding no other Bursary in this list (the aggregate not being under 70 per cent.), and who desires to enter the University of Edinburgh.

GENERAL ARRANGEMENTS FOR THE EXAMINATIONS.

Duties of Local Committee.

The Board of Management of the Edinburgh University Local Examinations undertake to Establish a Centre for any School or District, except Glasgow, St Andrews, Aberdeen, upon the following conditions :—

1. That not fewer than *six* Candidates present themselves to be examined.

Candidates who have already passed in certain subjects, and who come up for examination without additional Fee, are not reckoned among the six Candidates necessary to make a Centre.

2. That a Local Committee of those interested in the School make themselves responsible for the proper management of the Examinations.

3. That some gentleman residing in the neighbourhood, but unconnected with the School, act as Local Examiner.

The Board prefer to have as Local Examiner one who is a Member of the University Council, or connected with the University. They give for the work a Fee of Two Guineas. If an Examiner be sent from Edinburgh, his travelling and personal expenses are to be borne by the School, or Local Committee.

4. That the names of the Candidates, with the subjects they profess, be sent to the Secretary, and the Fees paid on or before the 1st June. Delay from unforeseen occurrences must be explained to the Secretary.

5. That expenses, if any, incident to the Examination in each Local Centre be borne by the Local Committee.

6. That the Local Committee provide suitable Rooms, Desks, &c., and make all other necessary arrangements for the accommodation of the Candidates during the Examination.

These arrangements are subject to the approval and control of the Superintending Local Examiner, who will see that they are such as to secure the convenience of the Candidates, and at the same time to prevent them from improperly referring to books or papers, or from communicating with each other.

In all cases where there are female Candidates, it is desirable that a Lady Superintendent should be present.

The paper, both for Writing and Drawing, is provided by the University. Other materials for writing are found by the Local Committee. Each Candidate should be supplied with two or three sheets of blotting paper, and a separate inkstand. Each should bring his own pens.

All surplus paper should be returned to Edinburgh along with the papers of the Candidates.

The Local Committee should arrange that at least one of their number attend in the Examination Rooms, to assist the Examiner when he is engaged in hearing the Candidates read aloud.

DUTIES OF THE LOCAL EXAMINER.

Printed instructions will be sent to the Examiner along with the papers of questions.

TO CANDIDATES FOR CERTIFICATES.

1. Printed forms, on which Candidates are to make application, will be ready on 1st May annually, and will be supplied by the Secretary, Local Examination Board, University. *They must be returned duly filled up before 1st June.*

2. Candidates may, on their first appearance, take the *Preliminary Subjects* alone, and may offer themselves on a subsequent occasion for examination in the *Special Subjects*.

3. Candidates undergoing examination whether in the Preliminary or the Special Subjects may, in the event of failure in only *one* of these, re-appear for examination in that subject, at any succeeding period of examination, without payment of additional fee, and with acknowledgment of having previously passed in the other subjects.

4. Candidates who fail in *more than one* Preliminary Subject must re-appear for examination in all the Preliminary Subjects, and pay half the usual fee.

5. Candidates who pass for the Junior or Senior Certificates may reappear another year for examination, but in not fewer than *two* additional subjects, with the view of adding to the value of the certificate previously obtained, on payment of half the usual fee.

6. The successful candidates will be ranked in *Two Divisions*, the first including those who pass in not less than *three special* subjects; the second, those who pass in only *two special* subjects. Candidates in each of these Divisions will be ranked in *Two Classes*. In determining the order of merit, the aggregate of marks gained will be taken; but in the case of Candidates who take *more than three* special subjects, no marks will be given for such additional subjects unless the Candidate has gained more than 40 per cent. of the attainable marks in these subjects; and the marks added from such additional subjects will be the aggregate marks gained, *minus* 40 per cent.

7. Fees.—Every Candidate for a Junior Certificate is required to pay a fee of 20s.*; every Candidate for a Senior Certificate a fee of 30s.—excepting in the case of those who have previously passed the Preliminary Subjects or obtained a Junior Certificate, when the fee will be 20s. Candidates already holding certificates, but who reappear to *add* to their subjects, pay a fee of 10s. Candidates who pass the Preliminary Subjects before any examining board, whose Preliminary examination is accepted, pay the full fee. These fees must be paid at the Secretary's office, University, *on or before the 1st June. Candidates'*

* The same fee is charged when Preliminary Subjects alone are taken.

names are not entered until the fee is paid. It should be forwarded with the forms filled up. No fee can be returned under any circumstances.

Under Special Regulations, given below, managers of schools may present whole classes for examination in selected subjects.

Additional information, if required, may be obtained by applying to the Secretaries to the Board, at the University.

By order of the Board,

H. CALDERWOOD, LL.D., } *Joint*
S. S. LAURIE, M.A., } *Secretaries.*

REGULATIONS AND CONDITIONS UNDER WHICH EXAMINATIONS OF PUBLIC SCHOOLS MAY BE CONDUCTED.

It shall be open to the Managers of Schools, on giving due notice to the Secretary, to present whole classes of their pupils for University Local Examinations. In such cases the following rules shall apply in the event of the University being able to undertake the examination :—

I. Pupils shall be grouped in three divisions, according to their stage of advancement, the lowest division being restricted to the preliminary subjects ; the intermediate division, to the subjects selected from the list for the Junior Certificate ; the highest division, to subjects selected from the list for the Senior Certificate.

II. The pupils thus examined shall not be included in the competition for Prizes, and shall not receive the special Certificates granted to others who pass.

III. The Fee shall be not less than Five Shillings per Pupil.

IV. A special Report of Results shall be made to the School Managers ; and all who pass Latin, Greek, and Mathematics in the highest division, as indicated in Regulation I., shall be entitled to enter the University for the three years' curriculum in Arts (*Leaving-Certificate*).

EXAMINERS.

A.—Department of Languages.

Principal Sir ALEXANDER GRANT, Bart., D.C.L., LL.D.
JOHN S. BLACKIE, Professor of Greek.
W. Y. SELLAR, LL.D., Professor of Humanity.
JULIUS EGGELING, Professor of Sanskrit and Philology.
S. S. LAURIE, M.A., Professor of the Institutes and History of Education.
JOHN MARSHALL, M.A., Examiner in Classics.
GEO. B. GARDINER, M.A., Assistant to the Prof. of Greek.
W. PETERSON, M.A., Assistant to the Professor of Humanity.

B.—Department of English.

A. C. FRASER, LL.D., Professor of Logic and Metaphysics.
DAVID MASSON, LL.D., Professor of Rhetoric and English Literature.
H. CALDERWOOD, LL.D., Professor of Moral Philosophy.
SHIELDS NICHOLSON, M.A., Professor of Political Economy.
A. H. CHARTERIS, D.D., Professor of Biblical Criticism.
ROBERT FLINT, D.D., Professor of Divinity.
D. L. ADAMS, M.A., B.D., Professor of Hebrew.
H. J. E. FRASER, M.A., Examiner in Mental Philosophy.
W. SETH, M.A., Assistant to the Professor of Logic.
W. L. CARRIE, M.A., Assistant to the Professor of Rhetoric and English Literature.
ALEX. MARTIN, M.A., Assistant to the Professor of Moral Philosophy.

C.—Department of Mathematics and Natural Philosophy.

GEORGE CHRYSTAL, M.A., Professor of Mathematics.
P. G. TAIT, M.A., Professor of Natural Philosophy.
ALEXANDER MACFARLANE, D.Sc., Examiner in Mathematics.
W. THOMSON, M.A., B.Sc. Assistant to the Professor of Mathematics.
C. G. KNOTT, D.Sc., Assistant to the Professor of Natural Philosophy.

D.—Department of Science.

A. C. BROWN, M.D., Professor of Chemistry.
WM. RUTHERFORD, M.D., Professor of Physiology.
JAMES GEIKIE, Professor of Geology.
JOHN SADLER, F.R.P.S., Curator of Botanic Garden.

E.—Drawing.

Miss WOON, Art School, Edinburgh.

F.—Music.

SIR HERBERT OAKELEY, M.A., LL.D., Mus.D., Professor of Music.

LOCAL CENTRES AND SECRETARIES.

Alloa.....Miss M'LEAN, The Cottage, Cambus.
Annan.....Miss M'MASTER.
Arbroath.....H. CORSTORPHINE, Esq., High School.
Auchterarder.....Miss VERONICA HISLOP, LL.A.
Auchtermuchty...Miss RENTON, Southfield House.
Banff..... .....Rev. G. WALKER, St Andrew's Parsonage.

Bathgate.....Rev. ALEXANDER SHENNAN.
Belfast.....Miss PARSONS, 3 Fitzroy Crescent.
*Berwick-on-Tweed*JOHN SCOTT, Esq., Corporation Academy.
Bristol.....Mrs BEDDOE, Mortimer House.
Broughty-Ferry..Miss HISLOP, Home Park.
Burntisland.....Rev. JAMES PARLANE.
Cambusnethan...Rev. R. S. HUTTON, M.A.
Carrickfergus.....J. D. OSBORNE, Esq., B.A.
Cromarty.....Rev. W. SCOTT, M.A.
Cupar-Fife.....Miss LUNN, Baxter House.
Denny.....T. R. WILSON, Esq., Herbertshire Castle.
Dollar.....G. THOM, Esq., Rector of Institution.
Dublin.... ....
Dumfries.....J. M. GUN, Esq., LL.B., Solicitor.
Dunblane.....Mrs W. STIRLING, Newton Cottage.
Dundee.....J. BREBNER, Esq., Dundee Institution, Tay Square
Dunse.....W. A. HUNTER, Esq., LL.B., Solicitor, Dunse.
Edinburgh..... { Professor CALDERWOOD, / Professor LAURIE, } *Joint Secretaries.*
Elgin.....Miss BARKER, Newton House.
Falkirk.....J. D. ANDERSON, Esq., M.A., The Academy.
Forfar.....Rev. JOHN WEIR.
Forres.....Rev. W. WATSON
Fraserburgh.....Rev. Mr WINTERBOTHAM.
Galashiels.....THOMAS FAIRLEY, Esq., Academy.
Grantham.....Miss LEVIEN, Ladies' College.
Greenock.....JOHN GRAHAM, Esq., B.A., Collegiate School.
Hawick.....JAS. BRAND, Esq., Teviot Grove Academy.
Helensburgh.....Rev. Mr WYLIE, Glenan Gardens.
Inverness.....Rev. GEO. ROBSON, M.A.
Keith.....Rev. Mr ALLAN, The Manse.
Kelso.....W. LAYTON, Esq., High School.
Kingussie.....Rev. K. MACKENZIE, M.A.
Kirkcaldy.....C. R. SCOTT, Esq., Burgh School.
Laurencekirk.....Miss ROBERTSON, The Firs.
Lenzie.....D. MACQUARRIE, Esq., M.A., Academy.
Lockerbie.....R. MUIR, Esq., Head Master of Public School.
London..... A. BOURNE, Esq., British and Foreign Schools Society, Borough Road.
Moffat.....Miss THOMSON, Beechwood.
Montrose.....DAVID CAMPBELL, Esq., English Master in the Academy.
Penrith.....W. BELL, Esq., Bishopyards.
Perth.....J. M'NEILL, Esq., Balhousie House.
Peterborough.....Rev. S. S. PHILIPS, The Precincts.
Peterhead.....Rev. W. STEWART, The Manse.
Portree.....A. MACDONALD, Esq., National Bank.
Saltcoats.....Rev. D. SCOTT, F. C. Manse.

Southport.....Miss RYLEY, 14 Grosvenor Road.
Stirling.....A. F. HUTCHESON, High School.
Stromness.....J. B. ROSIE, Esq.
St Vincent's, W. Indies...

DEPUTY EXAMINERS.

Arbroath.....Rev. A. B. CAMERON, B.D.
Ayr.....JAMES MACDONALD, M.A., 1 Cassilis St.
Bathgate.....Rev. ALEXANDER SHENNAN.
Banff.....Rev. GEORGE WALKER.
Belfast.....Miss PARSONS, 50 Botanic Avenue.
Bristol.....Mrs BEDDOE, Mortimer House.
Broughty-Ferry...Rev. R. PAISLEY.
Burntisland.....Rev. JAMES PARLANE.
Cambusnethan....Rev. R. S. HUTTON, M.A.
Carrickfergus.....J. D. OSBORNE, Esq., B.A.
Cromarty.....Rev. W. SCOTT.
Cupar Fife.....Rev. Mr FLEMING.
Denny.....Rev. THOMAS ROBERTON.
Dollar.....Rev. Mr WILSON.
Dunblane.....Rev. Dr MORRISON.
Dumfries.....JOHN M. GUN, Esq., M.A., LL.B.
Dundee.....Rev. JOHN DUNLOP.
Elgin.....Rev. J. SKINNER.
Forfar.....Rev. J. WEIR.
Forres.....Rev. WM. WATSON, M.A.
Hawick.....Rev. Mr BIRREL.
Helensburgh.....Rev. Mr WYLIE.
Inverness.....Rev. GEORGE ROBSON.
Keith.....Rev. W. S. CAIE.
Kelso.....Rev. P. M'KERRON.
Kirkcaldy.....DAVID NELSON, Esq., Bute Wynd.
Laurencekirk.....Rev. D. SIMPSON.
Lockerbie.....Rev. Mr WHYTE.
London.....ALFRED BOURNE, Esq., Borough Road.
Moffat.....Rev. THOMAS CRAWFORD, M.A., B.D.
Montrose.....Rev. J. LISTER, B.A.
Penrith.....Rev. J. H. OUSTON.
Perth.....JOHN M'NEIL, Esq.
Peterborough.....Rev. S. PHILLIPS.
Peterhead.....Rev. W. STEWART.
Saltcoats.....Rev. D. SCOTT.
Southport.....Miss RYLEY, Trafalgar Road.
Stirling.....Rev. J. E. H. THOMSON.
Stromness.....J. B. ROSEY, Esq.

II.—UNIVERSITY CERTIFICATES IN ARTS FOR WOMEN.

I. Candidates, before they can receive Certificates, must have studied in *at least three* of the Classes of the "Edinburgh Association for the University Education of Women," that are recognised by the Senatus Academicus; and they must also have passed the Local Examinations either of the University of Edinburgh, of one of the other Scottish Universities, or of the Universities of Oxford or Cambridge.

II. Candidates who have passed any of the aforesaid Local Examinations may present themselves at the Edinburgh University Examinations for the Certificate in Arts, either in *April* or in *October*—in the subjects of any one or more, or of all of the Classes attended by them. After they have passed in not less than three subjects, they are entitled to receive a University Certificate in Arts.

III. The Classes at present sanctioned and approved, by the University, are the following:—*Department of Languages and Literature*—English Literature, Latin, Greek, Biblical Criticism; *Department of Philosophy*—Psychology and Logic, Moral Philosophy, Political Economy, Theory of Education, Fine Art; *Department of Mathematics and Physical Science*—Mathematics, Experimental Physics, Chemistry, Geology, Botany, Zoology, and Physiology.

IV. The University Certificates in Arts for Women are of two grades —Pass Certificates and Honour Certificates.

V. Honour Certificates in Arts will be awarded to those Candidates who, having passed a satisfactory Examination in at least three subjects, have, in a farther and Special Examination for Honours, exhibited high proficiency in any *one* of these subjects.

VI. Candidates for the *Local Examinations* of the University, which are held in June, must send their names and addresses to the "Secretary of the Local Examination Board, University, Edinburgh," before the 1st June in each year.

VII. Candidates for *Ordinary* and for *Honour* University Certificates in Arts must send their names and addresses, and the subjects in which they wish to be examined, to the *Clerk of the University*, together with proof that they have passed the Local Examinations—before the 15th March or the 1st October in each year.

VIII. The fee for the *Local Examination* is one guinea, and that for the *University Certificate in Arts* two guineas—to be paid to the Clerk of the University. No additional fee is required for an Honour Certificate.

ORDINARY UNIVERSITY CERTIFICATES IN ARTS.

In accordance with the Regulations for "University Certificates in Arts for Women," the following days and hours are fixed for Examinations for ORDINARY UNIVERSITY CERTIFICATES, viz., in October 1882 :—

Tuesday,	*October* 17,	Latin (9-11 and 12-2); Mathematics (2.30-4.30).
Wednesday,	*October* 18,	Mathematics (9-11); Greek (1-4).
Thursday,	*October* 19,	Psychology and Logic (9-12); Experimental Physics (1-4).
Friday,	*October* 20,	Moral Philosophy (9-12); English Literature (1-4).

And in April 1883 :—

Monday,	*April* 9,	Latin (9-11 and 12-2); Mathematics (3-5).
Tuesday,	*April* 10,	Mathematics (9-11); Greek (1-4).
Wednesday,	*April* 11,	Psychology and Logic (9-12); Experimental Physics (1-4).
Thursday,	*April* 12,	Moral Philosophy (9-12); English Literature (1-4).

The above are the Seven Subjects of Examination necessary for the Degree of Master of Arts.

The days and hours of Examination, in October and April, for candidates who may select any subject not included in the Seven named in the above scheme, will be arranged after Candidates have given in their names.

The heads of Examination in October 1882, and in April 1883, are as follows :—

Latin.—Horace, *Odes*, iii. iv., *Epistles*, i. ; Cicero, *Letters to Atticus*, i. ; Tacitus, *Histories*, iii. A passage from a Latin author not prescribed. Latin prose. Roman History—The last century of the Republic. Roman Literature—Lives and works of Cicero, Virgil, and Horace. *Ability to translate into Latin prose is required of every Candidate.*

Greek.—Xenophon, *Memorabilia*, Book I. ; Plato, *Apologia*, *Crito ;* Homer, *Odyssey*, Books I., II. ; Euripides, *Alcestis*. A short English passage will be set for translation into Greek ; questions will be asked in Greek History and Literature.

Psychology and Logic.—The Class Lectures. Fowler's *Deductive Logic* and *Inductive Logic*. Professor Fraser's "Berkeley" in *Philosophical Classics* (Blackwood, 1881), and his *Selections from Berkeley*, pp. 1-90, pp. 223-265.

Moral Philosophy.—The Class Lectures—Butler's *Sermons*, I., II., III. ; Mackintosh's *Dissertation ; Handbook of Moral Philosophy*, by Professor Calderwood.

Political Economy.—Fawcett's *Manual*, and the Lectures of the Professor.

English Literature.—(*a.*) The Class Lectures. (*b.*) English Composition. (*c.*) History of the English Language: and first Five Chapters of Morris's *Historical Outlines of English Accidence*. (*d.*) History of English Literature, more particularly from 1580 to 1688; Morley's Text Book, and the portions of Hallam's *Literature of Europe* that relate to English writers of the period mentioned. (*e.*) Special Readings required:—Chaucer's *Clerkes Tale*, Clarendon Press Edition; Shakespeare's *King Henry V.*; Milton's *Areopagitica* and *Samson Agonistes*; Carlyle's *Essay on Burns*.

Mathematics.—Arithmetic. Euclid, Books I., II., III., IV., and VI., or their equivalent. Algebra to Quadratic Equations, including the Progressions.

Experimental Physics.—The Class Lectures.—Balfour Stewart's *Elementary Physics*.

Chemistry.—The Class Lectures—Bloxam's *Chemistry*.

Geology.—The Class Lectures—Jukes's *School Text-Book of Geology*.

Botany.—Description of the various parts of plants and their functions; Natural System of Classification, including classes, sub-classes, sections, and orders, as given in Balfour's *Elements of Botany*.

Zoology.—Nicholson's *Manual of Zoology*, and the Lectures of the Professor.

Physiology.—The Class Lectures—Huxley's *Physiology*.

Biblical Criticism.—Class Lectures for One Session: Apocryphal Gospels—Hammond's *Outlines of Textual Criticism applied to the New Testament* (or Scrivener's *Introduction* so far as regards MSS. and Versions).

Theory of Education.—1. Currie's *Common School Education*, p. 216 to end. 2. Herbert Spencer on *Education*—in addition to the Lectures.

Fine Art.—The Class Lectures.

HONOUR CERTIFICATES IN ARTS FOR WOMEN.

Friday, the 13th of April 1883, and following days are appointed for Examinations for HONOUR UNIVERSITY CERTIFICATES IN ARTS FOR WOMEN, when any who have passed the Ordinary Examinations in *at least three Subjects* may present themselves. Candidates may select, as the Subject of an Honour Examination, any *one* of the three Subjects in which they have passed the Ordinary Examination. (See Regulation VI.)

The heads of Examination are as follows:—

Latin.—Horace, *Odes* and *Epistles*; Virgil, *Eclogues* and *Georgics*, or *Æneid*; Cicero, *Letters to Atticus*, I. to IV.; Livy, I. to V., or Tacitus, *Annals*, I. to IV. History—The history of the periods treated of in the books prescribed. Literature—The lives and works of the authors prescribed. Latin Prose Composition. Passages set for translation into English from Books not prescribed.

Greek.—Homer, *Iliad*, I.-VI. inclusive; Sophocles, *Antigone*; Thucydides, VII.; Herodotus, IX.; Plato, *Republic*, I.-IV. An English passage will be set for translation into Greek; and questions will be asked on the leading points of Greek History and Literature. Passages set for translation into English from authors not prescribed.

Logic and Metaphysics.—The Class Lectures. Plato, *Theætetus;* Locke's *Essay;* Berkeley, *Selections*, and in *Philosophical Classics* (Blackwood, 1881); Hume, *Inquiry concerning Human Understanding;* Kant's *Critique of Pure Reason*; Hamilton's Lectures on *Logic*, and *Discussions*, I., II.; Mill's *Logic*, Books I., II., III.

Moral Philosophy.—The Class Lectures. Plato, *Republic*, I.-VII.; Aristotle, *Ethics* (omitting V., VI., VII.); Spinoza, *Ethics*, B. I.; Hume, *Principles of Morals;* Reid, *Essays on Active Powers*; Kant, *Metaphysic of Ethics.*

English Literature.—(*a.*) History and Structure of the English Language; Morris's *Historical Outlines of English Accidence*, first Five Chapters, with Chapter XII. (entitled "Pronouns"), and Appendices I. and III. (*b.*) History of English Literature, more particularly from 1250 to 1400, and from 1688 to 1789; Craik's larger *History of English Literature* and Taine's *History of English Literature* recommended, in addition to readings in the chief authors of the two periods mentioned. (*c.*) Special Readings required:—Spenser's *Faery Queene*, Book I. (Clarendon Press Edition); Bacon's *Advancement of Learning* (Clarenden Press Edition); Shakespeare's *King Lear*; Johnson's Life of Cowley; Wordsworth's Prose Prefaces, Appendix, &c., to his Poems; Tennyson's *Maud* and *In Memoriam.* (*d.*) English Composition.

Mathematics.—Euclid, I., II., III., IV., VI., and XI., or their equivalent; The advanced portions of the Elements of Algebra, Trigonometry, and Conic Sections, treated geometrically and analytically.

Experimental Physics.—A general knowledge of the subject, such as may be acquired from Stewart's *Elementary Physics*, or from Lectures of the Three Year Course. In addition, Maxwell's *Heat*, and to two first chapters of Thomson and Tait's *Elements of Natural Philosophy.*

Chemistry.—Bloxam's *Chemistry.*

Geology.—Jukes' *Students' Manual of Geology*, third edition (exclusive of Chapters II. and III.); Lyell's *Principles of Geology*; Playfair's *Illustration of the Huttonian Theory*,

Botany.—Vegetable Morphology and Physiology; (See Balfour's *Class-Book*, or his *Manual of Botany*). Botanical characters to be demonstrated on conspicuous specimens of the following Natural Orders:—Ranunculaceæ. Papaveraceæ, Cruciferæ, Caryophyllaceæ, Malvaceæ, Leguminosæ, Rosaceæ, Onograceæ, Umbelliferæ, Dipsacaceæ, Compositæ, Boraginaceæ, Labiatæ, Scrophulariaceæ, Primulaceæ, Euphorbiaceæ, Amentiferæ, Coniferæ, Orchidaceæ, Amaryllidaceæ, Lilliaceæ, Palmæ, Gramineæ, Filices. The Candidate will be examined practically

on the Microscopic Structure of Plants, and she will be required to describe the various parts of fresh plants put into her hands.

Physiology.
Biblical Criticism.
Theory of Education.

} Candidates who desire Honours in these subjects may consult the Professors as to Books, &c.

Candidates who propose to present themselves at the Ordinary Examinations in October must intimate their names and addresses to the "*Secretary of the Senatus, University of Edinburgh*," before the 1st of October; and at either the Ordinary or the Honour Examinations in April 1883, before the 15th of March—specifying the Subject or Subjects in which they offer themselves, and also the Classes which they have attended, with the Sessions in which they have done so. The Fee should be sent to the *Clerk* when the Candidate announces her name.

Evidence of having passed the Local Examinations, and also certificates of the necessary attendance in the Classes of the "Association for the University Education of Women" must be produced in the Examination Room when the candidate appears to be examined.

UNIVERSITY CERTIFICATES IN ARTS FOR WOMEN.

The following obtained Certificates in October 1881 :—

Jessie Coutts—*English Literature, Logic and Mental Philosophy, and Moral Philosophy.*

The following obtained Certificates in April 1882 :—

1. Cecily C. Clark—*Latin, Mathematics, and Botany.*
2. Janet M. Duncanson — *English Literature, Logic and Mental Philosophy, and Moral Philosophy.*
3. Barbara J. Paterson—*English Literature, Moral Philosophy, and Mathematics.*
4. Amelia H. Stirling—*English Literature, Latin, and Greek.*
5. Mary Symon—*English Literature, Moral Philosophy, and Mathematics.*
6. Elizabeth Thomson—*English Literature, Logic and Mental Philosophy, and Moral Philosophy.*
7. Jane Ellen Wright—*English Literature, Geology, and Botany.*

Honour Certificates.

1. Amelia H. Stirling, *Latin*—First-Class.
2. Margaret M. Hogg, *English Literature*—First-Class.
3. Emma J. Smith—*Moral Philosophy*—First-Class.

1. Mary Shepherd, *English Literature*—Second-Class.

III.—CIVIL SERVICE OF INDIA EXAMINATIONS.

The University of Edinburgh now being one of those Institutions selected by the Secretary of State for India, in which Candidates for the Civil Service of India may pass their probation, arrangements have been made by the Senatus for the accommodation of selected candidates in the house either of one of the Professors or of some suitable person sanctioned by the Senatus. Such selected candidates will be under the supervision of the Principal and Deans' Committee, who will undertake responsibility for their conduct and enforce rules of discipline upon them.

The Civil Service Commissioners have been requested to inform Candidates for the Indian Civil Service, that "in the event of their being appointed to the Service, a clause will be introduced into their Covenants, by which they will bind themselves to agree to such Regulations for the provision of pensions for their families as may be approved by the Secretary of State for India in Council."

Regulations for the Open Competition of June 1882.

N.B.—The Regulations are liable to be altered in future years.

1. On the 1st June 1882, and following days, an Examination, open to all qualified persons, will be held in London (*a*). Not fewer than thirty-seven Candidates will be selected, if so many shall be found duly qualified, viz.: twenty-four for the Presidency of Bengal [fourteen for the Upper, ten for the Lower Provinces (including Assam), and one for Burmah], six for that of Madras, and six for that of Bombay (*b*).

2. No person will be deemed qualified who shall not satisfy the Civil Service Commissioners :—

(i.) That he is a natural-born subject of Her Majesty.

(ii.) That his age will be above seventeen years and under nineteen years on the 1st of June 1882. [*N.B.—In the case of Natives of India this must be certified by the Government of India, or of the Presidency or Province in which the Candidate may have resided.*]

(iii.) That he has no disease, constitutional affection, or bodily infirmity unfitting him, or likely to unfit him, for the Civil Service of India.

(iv.) That he is of good moral character.

(v.) That he has paid such fee as may be prescribed under the provisions of the Order in Council of the 22d March 1879 (*c*).

(*a*) An order for admission to the Examination will be sent to each Candidate on the 18th of May.

(*b*) The numbers will be announced hereafter.

(*c*) The fee will be £5, payable by means of a special stamp according to instructions which will be communicated to Candidates.

3. Should the evidence upon the above points be *prima facie* satisfactory to the Civil Service Commissioners, the Candidate will be admitted to the Examination. The Commissioners may, however, in their discretion, at any time prior to the grant of the Certificate of Qualification hereinafter referred to, institute such further inquiries as they may deem necessary; and if the result of such inquiries, in the case of any Candidate, should be unsatisfactory to them in any of the above respects, he will be ineligible for admission to the Civil Service of India; and if already selected, will be removed from the position of a Probationer.

4. The Examination will take place only in the following branches of knowledge :—

	Marks.
English Composition	300
(*d*) History of England—including a period selected by the Candidate	300
(*d*) English Literature—including books selected by the Candidate	300
Greek	600
Latin	800
French	500
German	500
Italian	400
(*e*) Mathematics (pure and mixed)	1,000
Natural Science: that is, the Elements of any two of the following Sciences, viz. :— Chemistry, 500; Electricity and Magnetism, 300; Experimental Laws of Heat and Light, 300; Mechanical Philosophy, with outlines of Astronomy, 300.	
Logic	300
Elements of Political Economy	300
(*f*) Sanskrit	500
(*f*) Arabic	500

Candidates are at liberty to name any or all of these branches of knowledge. No subjects are obligatory.

5. The merit of the persons examined will be estimated by marks;

(*d*) A considerable portion of the marks for English History and Literature will be allotted to the work selected by the Candidate. In awarding marks for this, regard will be had partly to the extent and importance of the periods or books selected, but chiefly to the thoroughness with which they have been studied.

(*e*) The Examination will range from Arithmetic, Algebra, and Elementary Geometry, up to the elements of the differential and integral calculus, including the lower portions of applied Mathematics.

(*f*) The standard of marking in Sanskrit and Arabic will be determined with reference to a high degree of proficiency, such as may be expected to be reached by a native of good education.

and the number set opposite to each branch in the preceding regulation denotes the greatest number of marks that can be obtained in respect of it.

6. The marks assigned to Candidates in each branch will be subject to such deduction as the Civil Service Commissioners may deem necessary (*g*), in order to secure that "a Candidate be allowed no credit at all for taking up a subject in which he is a mere smatterer."

7. The Examination will be conducted on paper and *viva voce*, as may be deemed necessary.

8. The marks obtained by each Candidate, in respect of each of the subjects in which he shall have been examined, will be added up, and the names of the several Candidates who shall have obtained, after the deduction above mentioned, a greater aggregate number of marks than any of the remaining Candidates, will be set forth in order of merit, and such Candidates shall be deemed to be selected Candidates for the Civil Service of India, provided they appear to be in other respects duly qualified. Should any of the selected Candidates become disqualified, the Secretary of State for India will determine whether the vacancy thus created shall be filled up or not. In the former case, the Candidate next in order of merit, and in other respects duly qualified, shall be deemed to be a selected Candidate. A selected Candidate declining to accept the appointment which may be offered to him will be disqualified for any subsequent competition.

9. Selected Candidates, before proceeding to India, will be on probation for two years, during which time they will be examined periodically, with a view of testing their progress in the following subjects :—(*h*)

	Marks.
1. Law	1,250
2. Classical Languages of India—	
Sanskrit	500
Arabic	400
Persian	400
3. Vernacular Languages of India (each) . .	400
4. The History and Geography of India . .	350
5. Political Economy	350

In these Examinations, as in the open competition, the merit of the Candidates examined will be estimated by marks, and the number set opposite to each subject denotes the greatest number of marks that can be obtained in respect of it at any one Examination. The Examination will be conducted on paper and *viva voce*, as may be deemed

(*g*) Marks assigned in English Composition and Mathematics will be subject to no deduction.

(*h*) Full instructions as to the course of study to be pursued will be issued to the successful Candidates as soon as possible after the result of the open competition is declared.

necessary. The last of these Examinations will be held at the close of the second year of probation, and will be called the "Final Examination," at which it will be decided whether a selected Candidate is qualified for the Civil Service of India. At this Examination Candidates will be permitted to take up any one of the following branches of Natural Science, viz.—Botany, Geology, or Zoology, for which 350 marks will be allowed.

10. Any Candidate who, at any of the periodical Examinations, shall appear to have wilfully neglected his studies, or to be physically incapacitated for pursuing the prescribed course of training, will be liable to have his name removed from the list of selected Candidates.

11. The selected Candidates who, at the Final Examination, shall be found to have a competent knowledge of the subjects specified in Regulation 9, and who shall have satisfied the Civil Service Commissioners of their eligibility in respect of nationality, age, health, and character, shall be certified by the said Commissioners to be entitled to be appointed to the Civil Service of India, provided they shall comply with the regulations in force, at the time, for that Service.

12. Persons desirous to be admitted as Candidates must apply on Forms, which may be obtained from "The Secretary, Civil Service Commision, London, S.W.," at any time after 1st December 1881. The forms must be returned so as to be received at the office of the Civil Service Commissioners on or before 1st April 1882. They should be accompanied by evidence on the first four of the points mentioned in Regulation 2, and by a list of the subjects in which the Candidate desires to be examined (*i*).

The Civil Service Commissioners are authorized by the Secretary of State for India in Council to make the following announcements :—

(1.) Selected Candidates will be permitted to choose,* according to the order in which they stand in the list resulting from the open competition, so long as a choice remains, the Presidency (and in Bengal the Division of the Presidency) to which they shall be appointed ; but this choice will be subject to a different arrangement, should the Secretary of State, or the Government of India, deem it necessary (*k*).

(2.) The Probationers, having passed the necessary Examinations, will be required to report their arrival in India within such period after the grant of their Certificate of Qualification as the Secretary of State may in each case direct.

(3.) The seniority in the Civil Service of India of the selected Can-

(*i*) Evidence of health and character must bear date not earlier than 1st March 1882. Applications for leave to alter or add to the list of subjects named will not be entertained unless received on or before the 5th of May.

(*k*) This choice must be exercised immediately after the result of the open competition is announced, on such day as may be fixed by the Civil Service Commissioners.

didates shall be determined according to the order in which they stand on the list resulting from the Final Examination.

(4.) An allowance amounting to £300 will be given to all Candidates who pass their probation at one of the Universities or Colleges which have been approved by the Secretary of State, viz.:—The Universities of Oxford, Cambridge, Glasgow, Edinburgh, St Andrews, and Aberdeen; Trinity College, Dublin; University College, London; and King's College, London; provided such Candidates shall have passed the required Examinations to the satisfaction of the Civil Service Commissioners, and shall have complied with such rules as may be laid down for the guidance of selected Candidates.

(5.) All selected Candidates will be required, after having passed the first periodical Examination, and before receiving the first instalment of their allowance, to attend at the India Office for the purpose of entering into an agreement binding themselves, amongst other things, to refund in certain cases the amount of their allowance in the event of their failing to proceed to India. A surety will be required.

(6.) After passing the Final Examination, each Candidate will be required to attend again at the India Office, with the view of entering into covenants, by which, amongst other things, they will bind themselves to agree to such Regulations for the provision of pensions for their families as may be approved by the Secretary of State for India in Council. The stamps payable on these covenants amount to £1.

(7.) Candidates rejected at the Final Examination of 1884 will in no case be allowed to present themselves for re-examination.

History of England.

N.B.—For the guidance of Candidates who may have a difficulty in making their selections for special study under the heads of English History and Literature, the following lists are given as indicating the character and amount of reading that would be regarded as satisfactory.

Any one of the following periods, to be studied generally in "Bright's History," and specially in portions, selected by the Candidate, of the Text-books named:—

1. *Henry II. to Edward III.*, A.D. 1154-1377.—Stubbs' Select Charters; Stubbs' Constitutional History of England.

2. *The Tudors*, A.D. 1485-1603.—Hallam's Constitutional History of England; Froude's History of England.

3. *The Stuarts*, A.D. 1603-1714.—Hallam's Constitutional History of England; Macaulay's History of England.

4. A.D. 1714-1805.—Lord Stanhope's History; Sir T. E. May's Constitutional History; *either* Massey's Reign of George III. *or* Lord Stanhope's Life of Pitt.

English Literature.

Under this head there will be (besides the general paper) a special paper on the following books :—

1. *Chaucer.*—Prologue to the Canterbury Tales, with the Clerk's Tale

2. *Shakespeare.*—Coriolanus, The Tempest.

3. *Milton.*—Comus, and Sonnets.

4. *Bacon.*—Essays, i. to xxx. inclusive.

5. *Johnson.*—"Six Chief Lives of the Poets," viz. :—of Milton, Dryden, Swift, Addison, Pope, and Gray; with Macaulay's Biography of Johnson.

The oral examination in English Literature will have reference chiefly to such works, not included in the foregoing list, as the Candidate may offer for that purpose.

IV.—EXAMINATIONS FOR CANDIDATES FOR THE ARMY.

In the Explanatory Memorandum of the Secretary for War, to accompany the Royal Warrant (of 30th October 1871) regulating first appointments, regimental promotion, &c., in the Army, it was announced that "A certain number of Sub-Lieutenancies a year will be allotted to Candidates who have passed the University Examination specified in the Regulations. If they also pass the Examination for the degree of B.A., they will be allowed two years' extension of the limit of age. University Candidates will be required to give at least six months' notice of their desire to be admitted into the Army. If in any year there should be more Candidates than appointments, the requisite number will be chosen by competition between the Candidates; after their appointment they will go through the same course as other Sub-Lieutenants.

In subsequent communications from the War Office it has been announced that "The Examination for M.A. at a Scottish University will be considered tantamount to passing that of B.A. at an English or Irish University;" and that "the Secretary of State for War has accepted an examination at the Scottish Universities, to be defined as 'The Examination for Candidates for the Army,' as equivalent to the examination at the English and Irish Universities for similar candidates, and that the age of such candidates may be extended to 21 years. This examination will consist of three out of the seven examinations required for a degree at the University of Edinburgh; but one subject out of each of the three separate Departments will have to be taken up."

In conformity with the above regulations of the War Office—1st, those who have passed the Examination for M.A. degree will be eligible

for Commissions in the Army, and will be allowed two years' extension of the ordinary limit of age. 2nd, Those Students who have not passed the M.A. Examination may receive Certificates qualifying them for Commissions in the Army (provided they be within the age required by the regulations of the Army authorities, not more than 21 years of age) on having attended one class out of each of the three Departments of the M.A. curriculum,—that is to say (*a*) either Greek or Latin; (*b*) either Logic, Moral Philosophy, or Rhetoric and English Literature; (*c*) either Mathematics or Natural Philosophy,—and on passing at the M.A. Examination, in either April or October, in those three subjects in which the Candidate has attended classes.*

The names of intending Candidates for Certificates must be given in to the Clerk of the University at least ten days before the commencement of the M.A. Examination.

The Fee for the Examination of Candidates for the Army is two guineas.

A. C. FRASER,
Dean of the Faculty of Arts.

V.—SUBJECTS OF EXAMINATION for Students of Divinity and Candidates for Licence.

Adopted by the Presbytery of Edinburgh on the 27th March 1878.

I.—For Students entering the Divinity Hall the First Year.

(*See* Synopses of Divinity Classes.)

1. The history contained in the Old Testament Scriptures from Genesis to 2 Samuel (inclusive) and the four gospels. Accurate knowledge of the narrative, as shown in ability to narrate an incident or sketch a character according to the Scripture record.
2. The Shorter Catechism.

II.—For Students entering the Hall the Second Year.

1. Latin.—Cicero "De Natura Deorum," Books i. and ii.

2. Greek.—The Epistle to the Galatians, to be read critically, as in Lightfoot's Edition, with Introduction, Notes, and Dissertations.

3. Hebrew.—The Grammar, and Genesis, Chapters i.-viii.

4. Evidences of Christianity.—External Evidences; Butler's "Analogy," Part ii.

5. Biblical Knowledge.—The Rites and Institutions of the Mosaic Law according to Oehler's Old Testament Theology. Exami-

* See Regulations for Degree of M.A.

nation on the Books of the Old Testament from 1 Kings to Nehemiah inclusive.

6. Church History.—The Acts of the Apostles and History of the Church up to A.D. 323, as in Kurtz, I., §§ 1-63.

III. For Students entering the Hall the Third Year.

1. Latin.—Calvin's "Institutes," Lib. iv., cap. xvii.

2. Greek.—Gospel according to St John, to be read critically. Special examination as to its date and authorship.

3. Hebrew.—Genesis, Chapters xl.-l.

4. Biblical Knowledge.—The Prophetical Books of the Old Testament, and its chief Messianic predictions. Students to be able to give an account of the contents of any book or the bearing of any prophecy.

5. Church History.—The Sixteenth Century as in Kurtz, with M'Crie's "Life of Knox."

6. Systematic Theology.—Doctrines of the Divine nature and attributes, and of the Trinity. Dr Crawford's "Mysteries of Christianity."

N.B.—Students availing themselves of the alternative curriculum of *two full Sessions and three partial Sessions*, shall, before commencing their *Fourth* Session, be examined on the subjects in Section II., and before commencing their *Fifth* Session, on the subjects in Section III.

IV.—For Students applying for Licence as Probationers.

1. Latin.—Cicero "De Officiis," Book ii.; Horace's "Ars Poetica."

2. Greek.—Xenophon's "Memorabilia," Book ii.; and the Epistle to the Philippians, as in Lightfoot's Edition, with Introduction, Notes, and Dissertations.

3. Hebrew—Psalms i. to xx.

4. Logic and Metaphysics.—Fallacies. Induction as in Jevons's Elementary Lessons in Logic. Theories of Perception as in Reid's Intellectual Powers, Essay II., with Hamilton's Dissertations, B to D*, inclusive.

5. Moral Philosophy.—Ethical Theories and Natural Theology, with Stewart's Outlines and Butler's Three Sermons on Human Nature.

6. Natural Philosophy.—Statics and Dynamics as in Thomson and Tait's Elements of Natural Philosophy.

7. Church History.—History of the Church of Scotland from the Reformation to the Revolution, with M'Crie's Sketches.

8. Biblical Criticism.—The principal Manuscripts and Disputed Passages of the New Testament.

9. Systematic Theology.—The Confession of Faith, with Dr A. A. Hodge's Commentary.

VI.—REGULATIONS

WHICH HAVE BEEN APPROVED OF BY THE UNIVERSITY COURT (1865) RELATIVE TO THE TEMPORARY SUPPLY OF PROFESSORS' CHAIRS IN THEIR ABSENCE OR DISABILITY; AND (1876) FOR THE APPOINTMENT AND REMUNERATION OF SUBSTITUTES FOR UNIVERSITY EXAMINERS IN CASE OF ABSENCE.

1. That when any Professor shall be prevented from teaching his Class for more than three successive days, an arrangement shall be made, and intimated to the Dean of his Faculty, for his Class being taught in his absence.

2. That, in the case of those Professors who have reason to suppose that the occasional sudden demands of their profession, for a day or more at a time, may involve more than four days in all of absence from duty in the course of a Session, a similar arrangement shall be made and intimated, as in Regulation I.

3. That no arrangement for teaching a Class in absence of its Professor shall continue longer than one week, without the sanction of the Senatus, or, if there be no early enough meeting of the Senatus, without the *interim* sanction of the Principal's and Dean's Committee.

4. If any Professor shall contemplate an absence from duty exceeding one week, it shall be necessary for him to obtain the sanction of the Senatus before he shall so absent himself; and if his contemplated absence extend to four weeks or upwards, the sanction of the Senatus shall require the confirmation of the University Court.

5. No Professor shall employ any one, not a Colleague, to teach his Class for him, without obtaining the sanction of his Faculty; which shall be communicated to the Senatus at its first meeting thereafter.

6. No such deputy shall continue to teach any Class longer than one week without the sanction of the Senatus, or if there be not an early enough meeting, without the *interim* sanction of the Faculty to which the Class belongs.

7. If any Professor shall contemplate an absence of more than one week, the appointment of his deputy for teaching his Class shall require the sanction of the Senatus Academicus; and if the Professor contemplates an absence of four weeks or upwards, the sanction of the Senatus shall require the confirmation of the University Court.

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1. Any University Examiner who finds himself prevented from being present at any Examination at which it is his duty to act, shall intimate this to the Dean or other Chairman of his Examining Board, who, on

receiving such intimation, or otherwise becoming aware of the absence of the Examiner, shall, if possible, appoint a properly qualified Substitute to act for such Examiner. 2. In every case in which a person is appointed to act as Substitute for a University Examiner, and in which his Faculty, or Examining Committee, shall consider it necessary that the Substitute shall receive remuneration, the rate of remuneration to be paid by the Examiner (whether a Professor or Additional Examiner) to his Substitute, shall be fixed by the Faculty, or Examining Committee, and shall be based upon the amount of the Fees payable to the Additional Examiners attached to the Faculty or Examining Committee. 3. All absences of University Examiners, their duration and cause, and the relative arrangements made, shall be immediately reported for approval to the Senatus Academicus, by the Chairman of the Board to which the absent Examiner is attached; and a similar Report shall in every case of the absence of a University Examiner be made by the Senatus Academicus to the University Court; provided always that such arrangements shall receive immediate effect, when circumstances do not permit the previous approval of the Senatus Academicus to be obtained 4. In every case in which a Professor shall apply for leave of absence from his duties generally, provision shall be made, under the existing Regulations regarding leave of absence to Professors, for the performance of his duties as Examiner, as well as for the performance of his duties as Teacher; and necessary provision shall be made for the remuneration of his Substitute in both capacities.

VII.—REGULATIONS

OF THE UNIVERSITY COURT REGARDING APPLICATIONS FOR THE ADDITIONAL (OR NON-PROFESSORIAL) EXAMINERSHIPS IN THE UNIVERSITY.

1. Applicants should lodge nine copies of their applications (one of which should be signed), and nine copies of any testimonials they may desire to present, with the Secretary of the Court, not later than one week before the day fixed for making appointments in each case.

2. Applicants who send in testimonials must not send more than four for any one appointment.

3. The days for making appointments to the Additional Examinerships falling vacant in the ordinary course are:—In Arts, on the second Monday of July, for the period commencing on 1st October following; in Divinity, Medicine, Law, and the Civil Engineering Department of Science, on the first Monday after the 19th of January in each year, for the period commencing on 1st January preceding.

4. The appointments in Divinity, Arts, Law, and the C. E. Department of Science are for three years. The appointments in Medicine

are for one year, and the persons appointed may hold office by annual reappointment for a period of five years, but not longer, except under special circumstances.

5. Persons may be appointed to examine in two of the thirteen Subjects of the Examinations for Graduation in Medicine, but not more, and not in more than one Subject in any one Division of the Examinations.

6. Every applicant for an appointment in Divinity must hold the degree of B.D. from a Scottish University.

7. Every applicant for an appointment in Arts must be a member of the General Council of a Scottish University.

8. The appointments vacant in ordinary course in 1881-82 are stated in the Calendar under the proper date.

VIII.—STUDENTS' SOCIETIES AND CLUBS.

i.—ASSOCIATED SOCIETIES OF THE UNIVERSITY OF EDINBURGH.

This Association was instituted in 1833, and is a Union of Literary and Debating Societies. It is composed at the present date of four societies :—The Dialectic, Scots Law, Diagnostic, and Philosophical Societies. The following is the list of the Office-Bearers of the Association, and of the respective component societies :—

Honorary President—JOHN RUSKIN, LL.D., D.C.L. *Vice-Presidents*—The SENATUS ACADEMICUS of the University (*ex officio*). *Secretary*—E. MONTEITH MACPHAIL, Pilrig Manse.

DIALECTIC SOCIETY, INSTITUTED IN 1787.

Office-Bearers for Session 1882-83.

Presidents—G. L. GULLAND, M.A., R. F. BELL, M.A., F. MUIRHEAD, M.A., W. K. DICKSON, M.A., R. F. MYLES, M.A. *Secretary*—D. ROSS STEWART, M.A. *Treasurer*—J. R. ROXBURGH. *Delegates to the Council*—E. M. MACPHAIL, and D. ROSS STEWART, M.A.

This Society meets in the Societies' Hall every Thursday Evening during the Winter Session, at 8 P.M., for the prosecution of Literary and Philosophical Composition, Criticism, and Debate.

SCOTS LAW SOCIETY.—INSTITUTED IN 1815.

Office-Bearers for Session 1882-83.

Presidents—FRANK M. H. YOUNG, THOMAS LIDDLE, PATRICK SMITH, M.A. *Secretary*—P. M. MACINTYRE, M.A. *Treasurer and Librarian*—JAMES WILSON.

This Society meets every Monday Evening during the Winter Session, at 8.30 o'clock, in the Societies' Hall, for the discussion of Legal and Literary Questions.

DIAGNOSTIC SOCIETY.—INSTITUTED IN 1816.

Office-Bearers for Session 1882-83.

Presidents—A. ROLLAND RAINY, DUDLEY STUART, H. H. LITTLEJOHN, A. DEWAR. *Secretary*—A. HALLIDAY DOUGLAS. *Treasurer*—A. STEEL. *Delegates to the Council*—T. H. BRYCE, C. L. BLAIKIE.

This Society meets every Tuesday Evening during the Winter Session, at 9 o'clock, in the Associated Societies' Hall, for the purpose of debating and reading Essays.

PHILOSOPHICAL SOCIETY.—INSTITUTED IN 1871.

Office-Bearers for Session 1882-83.

Honorary Presidents—THE PRINCIPAL OF THE UNIVERSITY, Professor FRASER, Professor CALDERWOOD (*ex officiis*), A. J. BALFOUR, LL.D., M.P.

Senior President — JAMES SETH, M.A. *Presidents* — DONALD MACLEOD, M.A., JAMES GARDINER, M.A., R. S. SIMPSON. *Secretary*—R. E. OSBORNE. *Treasurer*—G. F. ROBERTSON, M.A. *Delegates to the Associated Societies*—JAMES SETH, M.A., and R. E. OSBORNE.

This Society meets in the Associated Societies' Hall, every Wednesday Evening during the Winter Session, at 8 o'clock, for the prosecution of Philosophical Criticism and Investigation.

ii.—EDINBURGH UNIVERSITY ATHLETIC CLUB.

President.— *Vice-Presidents.*—Professors BALFOUR, ANNANDALE, MACLAGAN, CRUM BROWN; MUIRHEAD, TURNER; JOHN CHIENE, Esq. *Chairman.*—Dr C. W. CATHCART. *Hon. Secretary*—G. E. BLANSHARD. *Committee*—R. S. F. HENDERSON, J. MACDONALD, J. H. A. LAING, E. K. BOURNE, G. C. CATHCART, H. BARRON. W. D. CHAMBERLAIN, A. S. PATERSON, W. A. PETERKIN, W. K. MORTON, H. BROOKS, G. H. BATTEN.

Any present or past Student of the University may become a Member. Subscriptions payable to the *Treasurers*, Messrs E. & S. LIVINGSTONE, 57 South Bridge (*opposite University Gate*), from whom further particulars, if required, may be obtained.

The privileges of Members are :—

1. The use of the Gymnasium, which is open every day from 10 A.M. to 6 P.M.

   Separate Classes for Boxing and Gymnastics have been previously formed, and will be repeated if a sufficient number wish to join. The Competition in these, as well as in Fencing and Singlestick, are held in March.

   N.B.—The Gymnasium is at the north-west corner of the Quadrangle, downstairs.

2. The use of the Field and a right to take part in the Athletic sports of the Club, held annually on first Saturday in July. (*For Programme of Events see Notice on Board at the time.*)

The Cricket and Football Field, with running path and Lawn Tennis Courts, at Corstorphine is within ten minutes of the Waverley Station. Special Return Tickets for Members of the E.U.A.C. (5d. each) to be had from Messrs E. & S. LIVINGSTONE.

Terms of Subscription.

N.B.—The departments have been separated to suit the convenience of Members.

	£	s	d
* Club Subscription	0	5	0
Gymnasium—Winter Session . . .	0	5	6
Do. Summer Session . . .	0	3	0
† Bicycle Club	0	2	6
Use of Field—Winter (Football and Inter-University Sports)	0	7	6
Use of Field—Summer—Cricket (with Professional) and Summer Sports . . .	1	1	0
Use of Field—Summer—Summer Sports .	0	5	0
Lawn Tennis Club. Subscription will be intimated on Board at University.			

For further particulars, see Notices on the Board at the University Gate, or apply to Messrs E. & S. LIVINGSTONE, opposite University.

iii.—EDINBURGH UNIVERSITY BOAT CLUB.

HONORARY MEMBERS.—Principal Sir ALEXANDER GRANT, Bart.; Professors BALFOUR, MACLAGAN, MUIRHEAD, TYTLER, CRUM BROWN, &c.

COMMITTEE.—*Captain*—J. H. BALFOUR. *Vice-Captain*—G. MONRO THOMSON. *Honorary Secretary*—A. J. PATERSON, 74 George Street. *Honorary Treasurer*—JOHN ELDER, W.S., 123 George Street. *Other Members of Committee*—J. P. BANNERMAN, W. A. WOOD, and A. NICOLSON.

The Club is composed of present or past Students of this and other Universities. Admission by ballot on the first and third Saturdays of each month, except August and September. Entry Money, One Guinea. Annual Subscription, payable on 1st February, Two Guineas.

The Boathouse of the Club is at Viewforth Bridge, Union Canal, and the Annual Races are held in June or July.

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* Necessary before joining any department, and admits (as spectator only) to the ground during the year, *i.e.*, from November to November.

† Members of the Bicycle Club, who wish to run at the Summer Games, need not pay Field Subscription, but all other Members of the E.U.A.C. who make use of the Field must do so.

iv.—EDINBURGH UNIVERSITY MUSICAL SOCIETY.

ESTABLISHED 1867.

Patron—H.R.H. THE DUKE OF EDINBURGH.

President and Conductor—Professor Sir HERBERT OAKELEY. *Vice-Presidents*—Principal Sir ALEXANDER GRANT, Bart.; Professors CALDERWOOD, FLINT, DICKSON, MACLAGAN, and RUTHERFORD. *Hon. or Corresponding Vice-Presidents* — Professor STRUTHERS, Aberdeen, and JOHN HULLAH, LL.D., London. *Treasurer*—JOHN SMALL, M.A., Librarian, University. *Joint Secretaries*—S. W. BRIERLEY, Dr G. SIMS WOODHEAD. *Committee*—L. A. GUTHRIE, F. W. GRIERSON, Dr CARGILL KNOTT, W. SNEDDON, W. DE WATTEVILLE.

The Meetings of the Society are held weekly during the Winter Session in the Music Class Room, Park Place, and commence on the second Friday of November. Subscription, Five Shillings. An Elementary Class may also be formed if the members desire it.

v.—EDINBURGH UNIVERSITY RIFLE COMPANY SHOOTING CLUB.

President.—Major TURNER. *Vice-Presidents.*—Lieutenant MATHESON, Lieutenant BAXTER. *Secretary and Treasurer*—Lieutenant BAXTER. *Committee*—Col.-Sergeant Watson; Sergeants BANNERMAN, HAILES, MYRTLE, and LAING; Corporals M'INTYRE and STANLEY SCOTT; Lance-Corporals WARBURTON, H. M. CADELL, W. LITTLE, BOYCOTT, HORNE; Privates S. JOHNSTON, C. JOHNSTON, S. SCOTT, W. FERGUSON, W. W. B. FRY, J. M. CADELL, W. J. WILL, and J. P. BANNERMAN.

The Club is open to members of No. 4 (University Co.) Q.E.R.V.B. Competitions are held weekly at Hunter's Bog, prizes being given at the end of the season for the best aggregate scores. Entrance Fee, Two Shillings and Sixpence. Annual Subscription, Two Shillings and Sixpence.

vi.—AGRICULTURE CLASS DISCUSSION SOCIETY.

ESTABLISHED 1858.

This Society meets once a week during the Winter Session at 8 P.M., for the purpose of reading papers and discussing subjects bearing upon Agriculture and Rural Economy. All present and past Students of the Class are eligible as members. The President and Secretaries are elected at the commencement of each session. The subscription fee for the Session is Two Shillings and Sixpence.

vii.—CHEMICAL SOCIETY.—INSTITUTED 1874.

President.—Prof. A. CRUM BROWN, M.D., D.Sc. *Vice-Presidents.*—LEONARD DOBBIN, Ph.D., F.R.S.E., C. HUNTER STEWART. *Secretary.*—COSMO I. BURTON. *Treasurer.*—WILLIAM MARSHALL.

This Society meets on alternate Wednesdays at 8 p.m. during the Winter Session, for the reading and discussion of papers, &c., on subjects relating to Chemistry.

During the Summer Session excursions will be made to chemical works, &c. For particulars apply to the Secretary at the Chemical Laboratory.

viii.—EDINBURGH UNIVERSITY PHILOMATHIC SOCIETY.—Instituted 1858.

Office-Bearers for Session 1882-83.

Presidents—James B. Henderson, A. H. W. M'Donald, R. W. C. M'Kenzie. *Secretary*—J. Winter. *Assistant Secretary*—R. F. Robertson. *Treasurer*—J. C. Smith. *Standing Committee*—W. Hamilton, R. Miller, W. M. Traill.

This Society meets every Friday evening during the Winter Session at 8 p.m., in the Logic Class-Room, for the purpose of debating and reading essays. Open to students of all Faculties.

ix.—THE STUDENTS' CLUB.

This Club, which is open to all Students of the University, College of Surgeons, and Divinity Halls, was instituted in 1876 for the purpose of obviating some of the disadvantages attendant on the system of residence in separate lodgings.

The accommodation consists of Smoking, Reading, Dining, and Luncheon Rooms. There is also a Lavatory, and the members are supplied with the chief daily and weekly periodicals.

In various ways this Institution encourages social intercourse between the students of the various Faculties. Subscription, 10s. for Winter Session; 5s. for Summer Session.

The New Club Rooms are at 3 Park Street, adjacent to the New University Medical School.

Members of Committee.—G. A. Ballingall, M.A., G. B. Batten, John Griffin, R. S. F. Henderson, J. H. A. Laing, B. L. Mills, M.B., C.M., W. A. Malcolm, C. C. Scott, James Ryan, W. F. R. De Watteville, R. Marshall, W. Ferguson. *Chairman.*—C. W. Cathcart, M.A., M.B., F.R.C.S. *Secretary*—David Smart.

x.—EDINBURGH MEDICAL STUDENTS' CHRISTIAN ASSOCIATION.

Office-Bearers for Session 1882-83.

Honorary President—Professor Crum Brown, D.Sc. *Honorary Vice-Presidents*—Professor Spence, F.R.S.E.; Professor Maclagan, M.D.; Professor Grainger Stewart, M.D.; Professor Simpson, M.D.; J. H. Balfour, F.R.S.; Professor Greenfield. *Secretary*—F. I. Mackinnon. *Treasurer*—J. B. Wilkinson. *Committee*—

E. E. Maddox, W. B. Benjafield, R. W. Philip, G. Cecil Dixon, S. S. Macfarlane, J. Rigg, E. T. Pritchard.

The object of this Association is, briefly, to form a bond of union between Medical Students whose principles and aim in life are "Christian." The work is carried on by means of a Students' Weekly Prayer Meeting held in the Chapel of the Royal Infirmary, and by other religious and social meetings. Membership is open to all Medical Students who desire to promote the objects of the Association. Annual Subscription, 1s. Former Members will please intimate change of address to Mr F. I. Mackinnon, Secretary, 56 George Square.

xi.—EDINBURGH UNIVERSITY THEOLOGICAL SOCIETY.

Office-Bearers for Session 1882-83.

Presidents—R. H. Fisher, M.A.; C. H. Carrick, M.A.; W. P. Paterson, M.A.; J. F. Andison, M.A. *Secretary and Treasurer*—Chas. Robertson, M.A. *Committee*—H. C. Begg; W. C. Fraser; J. A. Snodgrass, M.A.; A. P. Sym, M.A.

This Society was founded in the year 1766. It is open to all Students who are or have been connected with any Theological Seminary. The Society meets every Friday evening at 8 P.M., during the Winter Session, for the purpose of debating questions of present interest connected with Theology, Church History, Biblical Criticism, General Ecclesiastical Polity, and kindred subjects. The entrance fee is 2s 6d, and an annual assessment is levied if necessary.

xii.—EDINBURGH UNIVERSITY TEMPERANCE SOCIETY.

Instituted in 1853.

Office-Bearers for Session 1882-83.

Honorary President—Professor Calderwood. *President*—Samuel Beattie. *Vice-President*—Wm. Marwick. *Joint-Secretaries*—Wm. J. Will and Andrew B. Wann, M.A. *Treasurer*—John Dinwiddie, M.A. *Committee*—R. F. Myles, M.A., Lothian Gray, M.A., T. B. Darling, T. S. Lawry, J. M. Campbell, M.A., J. P. Bowden, Edmund Walker, Robert Watson, Alex. M'Millan, John Lamont, Donald Stewart, Andrew Geggie.

The Society meets occasionally during the Winter Session. Time and place of meetings will be advertised.

Principle—*Total Abstinence.*

xiii.—THE UNIVERSITY PRAYER MEETING.

President—John Urquhart, 10 Brougham Street. *Treasurer*—James Blyth Gillison, 18 Nicolson Street. *Secretary*—John Lewis Martin, 54 Frederick Street.

This Meeting is held during the Winter Session in the Public Law Class-Room, every Saturday at a quarter past two o'clock.

XIV.—EDINBURGH UNIVERSITY MISSIONARY ASSOCIATION.—INSTITUTED 1825.

Office-Bearers for 1882-83.

Honorary President—The Rev. ARCHIBALD SCOTT, D.D. *President*—W. B. RITCHIE, M.A. *Vice-President*—J. F. ANDISON, M.A. *Superintendents of Home Mission*—J. G. EDWARD, M.A.; DAVID WILSON, M.A., and, for the recess, J. WATTIE, M.A. *Treasurer*—LOTHIAN GRAY, M.A., 10 Bruntsfield Crescent. *Secretary*—J. A. SNODGRASS. *Librarian*—R. H. FISHER, M.A. *Vice-Librarian*—W. P. PATERSON, M.A. *Committee—Faculty of Theology*—T. BICKERTON, M.A.; A. HORN, M.A.; J. MUNRO, M.A.; J. WATTIE, M.A.; CHAS. ROBERTSON, M.A.; A. P. SYM, M.A. *Faculty of Arts*—W. SCOTT, H. JAMIESON, W. HUTTON, J. SHARP, W. B. HAMILTON, A. VASSIE. *Faculty of Medicine*—F. W. STEWART, M.A.; R. VASSIE. *Faculty of Law*—R. F. MYLES, M.A.; G. A. TOUCH.

This Association meets in the Church History Retiring Room every Saturday morning at 10 o'clock during the Winter Session. At its meetings addresses are delivered and business transacted. The Association is open to all Students of Edinburgh University.

XV.—UNIVERSITY GOLF CLUB.

President—The Right Hon. JOHN INGLIS, D.C.L., LL.D., Chancellor of the University. *Vice-Presidents*—Principal Sir ALEXANDER GRANT, Bart., Hon. LORD SHAND, Professors MUIRHEAD, NICHOLSON, and Dr ARGYLL ROBERTSON. *Captain*—R. FITZROY BELL, M.A. *Council*—A. DUFF WATSON, H. S. MERRITT, and ST CLAIR CUNNINGHAM. *Treasurer*—W. PERCIVAL LINDSAY. *Secretary*—J. H. BRYCE, M.A., 31 Charlotte Square.

The Club meets for play at Musselburgh and elsewhere on the first Saturday in each Month during the Winter and Summer Sessions. Members are elected by ballot at the Monthly Meetings held in the Club-room in Musselburgh. Past as well as present Students of the University being eligible for election. The Club Medal is played for at the conclusion of the Summer Session, and the Challenge Shield (Handicap) sometime during the Winter, while other Prize Competitions are held from time to time. Annual Subscription, 5s. Entry Money, 10s.

XVI.—UNIVERSITY OF EDINBURGH NATURAL SCIENCE CLUB.

90A GEORGE STREET.

Hon. President—ARCHIBALD GEIKIE, LL.D., F.R.SS.L. & E., Director-General of the Geological Survey. *Council*—JOHN CHIENE, F.R.C.S., F.R.S.E.; D. J. CUNNINGHAM, M.D., F.R.S.E.; MATTHEW HAY, M.D.; G. A. GIBSON, M.D., D.Sc., F.R.S.E.; J. M. MACFARLANE, B.Sc.; T. P. ANDERSON STUART, M.B.; The SECRETARY, *ex officio*. *Secretary*—P. GEDDES, F.R.S.E., 81A Princes St.

X.—ROYAL MEDICAL SOCIETY, EDINBURGH.

Founded 1737. Royal Charter granted 1778.
Office-Bearers for 1881-82.

Presidents—R. M'KENZIE JOHNSTON, M.B., C.M.; P. W. MAXWELL, M.B., C.M.; J. L. GIBSON, M.B., C.M.; R. W. PHILIP, M.B., C.M. (in place of J. G. SOUTAR, M.B., C.M. resigned). *Hon. Secretaries*—R. T. SUTHERLAND, M.B., C.M.; A. C. WATSON. *Library Curator*—ARTHUR W. HARE. *Museum Curator*—R. SYDNEY MARSDEN, D.Sc., F.R.S.E., &c. *Hon. Treasurer*—J. R. YOUNG. *Sub-Librarian*—J. TURNER. *Law-Agent*—R. SIMPSON, Esq., W.S.

This Society meets every Friday evening, during the Winter Session, in its own buildings, 7 Melbourne Place. Dissertations are given weekly on some subject connected with medicine, and then discussed by members present. The Society has an excellent library with 20,000 volumes, besides a consultation press, specially useful to students reading for their examinations. There is a comfortable reading-room, a chemical laboratory, and an excellent museum and herbarium.

Annual Subscription, £2, 2s. By paying Five Annual Subscriptions, or by at once paying £8, 8s, a gentleman becomes a Life Member. Admission by ballot. Forms of application for membership may be had at the Society's Hall from the Sub-Librarian.

XI.—ASSOCIATION FOR THE BETTER ENDOWMENT OF THE UNIVERSITY OF EDINBURGH.

President—The Right Hon. the LORD JUSTICE-GENERAL, D.C.L., LL.D., Chancellor of the University. *Vice-Presidents*—The Right Hon. The EARL OF STAIR, K.T.; The Right Hon. The EARL OF ROSEBERY, Rector of the University; The Right Hon. LORD ELCHO, LL.D., M.P.; The Right Hon. LORD MONCRIEFF, LL.D.; The Hon. LORD DEAS; Sir JOHN DON-WAUCHOPE, Bart.; *Principal Sir ALEXANDER GRANT, Bart., D.C.L., LL.D.; Sir JAMES GARDINER BAIRD, Bart.; *Sir JAMES FALSHAW, Bart.; DUNCAN M'LAREN, Esq.; *Hon. Secretary*—*ARCHIBALD CAMPBELL SWINTON, Esq. of Kimmerghame, LL.D. *Acting Secretary*—JOHN CHRISTISON, Esq., W.S., 40 Moray Place.

Ordinary Members of the General Committee—(Members of the Acting Committee are marked thus *.)—FINDLAY ANDERSON, Esq.; The Right Hon. JOHN B. BALFOUR, Q.C., M.P., Lord Advocate; JOHN H. BALFOUR, Esq., M.D.; *EDMUND BAXTER, Esq., W.S.; *DONALD BEITH, Esq., W.S.; The Rev. WM. G. BLAIKIE, D.D.; JOHN BOYD, Esq.; *The Right Hon. THOMAS J. BOYD, Lord Provost of Edinburgh; JOHN CARMENT, Esq., LL.D., S.S.C.; *JOHN CHIENE, Esq., F.R.C.S., Edinburgh; *D. CHRISTISON, Esq., M.D.; *JOHN CHRISTISON, Esq., W.S.; The Hon. LORD RUTHERFURD CLARK, LL.D.; JOHN COOK, Esq., W.S.; *R. CAMERON COWAN, Esq., C.A.;

*Donald Crawford, Esq., Advocate; Henry Davidson, Esq.; *James Donaldson, Esq., LL.D.; Sir W. Elliot of Wolfelee, K.C.S.I.; *J. R. Findlay, Esq.; James T. Gibson-Craig, Esq.; Andrew Gillon, Esq. of Wallhouse; D. R. Haldane, Esq., M.D.; The Rev. William Hanna, D.D.; George Harrison, Esq.; *James Hope, Esq., W.S.; The Hon. Lord Kinnear, LL.D.; *C. H. Millar, Esq. of Blair Castle; *John Miller, Esq. of Leithen; David Milne-Home, Esq. of Milne Graden, LL.D.; *Thomas G. Murray, Esq. of Stenton; John Dick Peddie, Esq., M.P.; *The Rev. K. M. Phin, D.D.; The Hon. Bouverie F. Primrose, C.B.; Samuel Raleigh, Esq.; The Hon. Lord Shand, LL.D.; *George Smith, Esq., LL.D., C.I.E.; *R. M. Smith, Esq.; *David Stevenson, Esq., C.E.; *Thomas Stevenson, Esq., C.E.; *William T. Thomson, Esq.; *James Walker, Esq. of Dalry; *W. S. Walker, Esq. of Bowland, C.B.; John Weir, Esq.; Alexander Wood, Esq., M.D.

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Terms of Membership—Life Subscription, Ten Guineas; Annual Subscription, One Guinea. Subscriptions and Donations in excess of these Sums are earnestly solicited by the Committee.

XII.—UNIVERSITY OF EDINBURGH BUILDINGS EXTENSION SCHEME.

Summary of Proposals.

1*st*, To purchase the sites of Park Place and Teviot Row. (*This has been already effected at a cost of about* £33,000.)

2*d*, To erect in the immediate vicinity of the New Royal Infirmary complete Class-Rooms, Theatres, Laboratories, and Museums, with the latest scientific improvements, for the Medical Faculty of the University of Edinburgh. These are now in course of erection.

3*d*, To re-organise the existing Class-Rooms of the College, and to improve them in direct adaptation to the wants of the several Professors in the Faculties of Arts, Law, and Theology.

4*th*, To provide increased and more convenient accommodation for the University Library.

5*th*, To erect a University Hall for the conferring of Degrees, the holding of Examinations, and for all public Academical Ceremonials.

6*th*, To improve to some extent the North Front of the present College Building.

TRUSTEES.

The Right Hon. Sir THOMAS J. BOYD, Lord Provost.
His Grace the DUKE OF BUCCLEUCH AND QUEENSBERRY, K.G., D.C.L., LL.D.
The Right Hon. the EARL OF STAIR, K.T.
Sir WILLIAM JOHNSTON of Kirkhill.

ACTING COMMITTEE.

The Right Hon. THOMAS J. BOYD, Lord Provost.
Principal Sir ALEXANDER GRANT, Bart., LL.D.
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JAMES COWAN, Esq., M.P.
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Professor CRUM BROWN.
JOHN CHRISTISON, Esq., W.S.
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R. BRUCE JOHNSTON, Esq., W.S.
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T. G. MURRAY, Esq., W.S.
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Principal Sir ALEXANDER GRANT, Bart., *Convener.*
ALBERT BUTTER, Esq., Union Bank of Scotland, } *Hon. Treasurers.*
JAMES NORWELL, Esq., Secretary, Union Bank of Scotland, Edinburgh, }
Professor WILSON,
JOHN CHRISTISON, Esq., W.S., } *Hon. Secretaries.*
R. BRUCE JOHNSTON, Esq., W.S., }

SUM REQUIRED FROM THE PUBLIC, £107,500.

SUBSCRIPTIONS.

The late Sir David Baxter of Kilmaron, Bart., by bequest, less Legacy Duty,	£18,000 0 0
His Grace the Duke of Buccleuch and Queensbery, K.G., D.C.L., LL.D.,	4,000 0 0
The Right Hon. the Lord Justice-General, D.C.L., LLD., Chancellor of the University,	600 0 0
The late Sir William Stirling-Maxwell of Pollok and Keir, Bart., LL.D., M.P.,	1,000 0 0

The late David Anderson, Esq., of Moredun, - -	600	0	0
Charles Cowan, Esq., of Logan House, - -	1,000	0	0
P. D. Swan, Esq., Provost of Kirkcaldy, - -	1,000	0	0
The Royal College of Physicians of Edinburgh, -	1,050	0	0
The Right Hon. the Earl of Stair, K.T., . -	1,000	0	0
The Most Hon. the Marquis of Lothian, - -	750	0	0
From the General Fund of the University of Edinburgh,	4,000	0	0
The Most Hon. the Marquis of Bute, - - -	1,000	0	0
Messrs John Jeffrey & Co., - - - -	500	0	0
The Right Hon. the Earl of Moray, - - -	525	0	0
C. Morrison, Esq. of Islay, - - - -	500	0	0
The Right Hon. the Earl of Derby, - - -	1,000	0	0
Lady Campbell of Garscube, - - - -	500	0	0
C. Jenner, Esq., - - - - -	600	0	0
The Magistrates and Council of the City of Edinburgh,	2,050	0	0
The Goldsmiths' Company of London, - -	500	0	0
The late Graham Menzies, Esq. of Hallyburton, -	500	0	0
Charles Andrew Aitchison, Esq., 77 Queen Street, -	1,050	0	0
William M'Ewan, Esq., 43 Manor Place, - -	500	0	0
The Most Hon. The Marquis of Hartington, - -	500	0	0
The late Henry George Watson, Esq., C.A. - -	300	0	0
Do. by bequest, free of legacy duty, - -	500	0	0
	£43,525	0	0
Other subscriptions, in sums of £400 and under, about -	£56,963	19	4
Total up to 30th April 1881, - -	£100,488	19	4
Government Grant, - - - -	£80,000	0	0
	£180,488	19	4

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ADDENDA.

P. 107, l. 4, *to* Walker (Thomas), insert footnote :—

" Professor of Logic and English Literature, Stellenbosch College, Cape Colony."

P. 351.

VIII.—Vans Dunlop Scholarship in Mathematics.

[The regulations for this Scholarship are given at p. 355.

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EDINBURGH, *April* 1882.

(*End.*

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Ordinary Physicians and Lecturers on Clinical Medicine,	Dr Claud Muirhead. Dr David J. Brakenridge. Dr John Wyllie.
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No Fees are paid for any Medical or Surgical Appointment in this Hospital. The Subordinate Appointments are made by the Physicians and Surgeons, or, on their recommendation, by the Managers; and they are open to all Students and Junior Practitioners holding the Hospital Ticket during the period over which the appointment extends. These appointments are as follows:—

1. RESIDENT PHYSICIANS and SURGEONS are from time to time appointed by the Managers on the recommendation of the Physicians and Surgeons. The holders of these Offices live in the House free of Charge. Candidates must be registered as legally qualified Practitioners. The appointment is for six months, but may be renewed at the end of that period by special recommendation.
2. NON-RESIDENT CLINICAL CLERKS are appointed by the Physicians and Surgeons, for such periods and under such conditions as they deem expedient.
3. DRESSERSHIPS. Each Surgeon appoints from Four to Nine Dressers, the appointment being for Six Months.
4. ASSISTANTS in the PATHOLOGICAL DEPARTMENT are appointed by the Pathologist.

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The whole Education required for GRADUATION at the UNIVERSITY OF LONDON may be taken in this School.

SUMMER SESSION, 1882.

ANATOMY, { PRACTICAL ANATOMY, . / COURSE OF DEMONSTRATIONS, .	9 a.m. till 4 p.m. / 11 a.m.	Mr J. SYMINGTON (Minto House, Chambers' St.)
ANATOMY, { PRACTICAL ANATOMY, . / COURSE OF DEMONSTRATIONS, .	9 a.m. till 4 p.m. / 11 a.m.	Mr CHARLES W. CATHCART (Surgeons' Hall.)
CHEMISTRY, { PRACTICAL CHEMISTRY, . / ANALYTICAL CHEMISTRY, .	9 a.m. till 5 p.m.	DrSTEVENSONMACADAM (Surgeons' Hall.)
ORGANIC CHEMISTRY (*Lectures*) Tuesdays, Wednesdays, and Thursdays, . . .	1 p.m.	
CHEMISTRY, { PRACTICAL CHEMISTRY, . / ANALYTICAL CHEMISTRY, .	9 a.m. till 5 p.m.	Mr J. FALCONER KING (MintoHo.,Chambers'St.)
CHEMISTRY, { PRACTICAL CHEMISTRY, . / ANALYTICAL CHEMISTRY, .	9 a.m. till 5 p.m.	Mr JVISON MACADAM (Surgeons' Hall.)
CHEMISTRY, { PRACTICAL CHEMISTRY, . / ANALYTICAL CHEMISTRY, .	9 a.m till 5 p.m.	Dr DRINKWATER (20 Marshall Street.)
CHEMISTRY, ANALYTICAL CHEMISTRY, .	10 a.m. till 4 p.m.	Mr J. Y. BUCHANAN (11 Nicolson Square.)
MATERIA MEDICA AND THERAPEUTICS, .	9 a.m.	Dr FRANCIS W. MOINET (Surgeons' Hall.)
MATERIA MEDICA AND THERAPEUTICS, .	9 a.m.	Dr WILLIAM CRAIG (Minto House, Chambers' Street.)
PRACTICAL MATERIA MEDICA including Practical Pharmacy, . . .	10 a.m.	
MIDWIFERY AND DISEASES OF WOMEN AND CHILDREN, ...	10 a.m.	Dr KEILLER (Surgeons' Hall.)
MIDWIFERY AND DISEASES OF WOMEN,	10 a.m.	Dr HALLIDAY CROOM (Minto Ho.,Chambers' St.)
MIDWIFERY AND DISEASES OF WOMEN AND CHILDREN, ...	10 a.m.	Dr CHARLES BELL (20 Marshall Street.)
MIDWIFERY AND DISEASES OF WOMEN AND CHILDREN, ...	10 a.m.	Dr PETER YOUNG (Park Place).
MIDWIFERY AND DISEASES OF WOMEN AND CHILDREN, ...	10 a.m.	Dr DAVID BERRY HART (Park Place).
MEDICAL JURISPRUDENCE AND PUBLIC HEALTH,	11 a.m.	Dr LITTLEJOHN (Surgeons' Hall.)
ROYAL INFIRMARY, ...	12 noon.	
CLINICAL MEDICINE (Tuesdays and Fridays), .	12 noon.	Drs CLAUD MUIRHEAD, BRAKENRIDGE, and WYLLIE. Dr ANGUS MACDONALD (*For Diseases of Women*) (Royal Infirmary.)
,, ,, Tutorial Class for Physical Diagnosis,*		
CLINICAL SURGERY (Mondays and Thursdays), .	12 noon.	Mr JOSEPH BELL (Royal Infirmary.)
,, ,, Tutorial Class for Practical Surgery,*		
PRACTICAL PHYSIOLOGY, ...		Dr JAMES (Surgeons' Hall.)
PRACTICAL PHYSIOLOGY, ...		Mr JAMES HUNTER (MintoHo.,Chambers'St.
PRACTICAL PATHOLOGY, ...	2 p.m.	Dr BRYAN CHAS. WALLER (Minto Ho.,Chambers'St.
PRACTICAL PATHOLOGY, ...	9 a.m.	Dr J. B. BUIST (Surgeons Hall.)
PRACTICAL PATHOLOGY, ...	10 a.m.	Mr D. J. HAMILTON (Pathological Laboratory) Royal Infirmary.
NATURAL HISTORY—ZOOLOGY AND COMPARATIVE ANATOMY—Daily, . . .	2 p.m.	Dr ANDREW WILSON (Surgeons' Hall.)
DISEASES OF THE EYE, Daily (Eight Weeks' Course),	9 a.m.	Dr ARGYLL ROBERTSON (Surgeons' Hall.)
DISEASES OF THE EYE (Mon., Wed., & Fri.) with Clinical Instruction at Cowgatehead Dispensary on Mons. and Thurs., at 7 p.m.,	3 p.m.	Dr JOHN ROBERTSON (MintoHo.,Chambers'St.)

Clinical Medicine and Surgery

Diseases of the Eye (Tuesdays, Wednesdays, and Thursdays),	9. a.m.	Mr George Berry (Park Place).
Practical Medicine & Medical Diagnosis, Daily,	9 a.m.	Dr Byrom Bramwell (Park Place.)
Medical Anatomy & Physical Diagnosis,	9 a.m.	Dr George A. Gibson (Surgeons' Hall.)
Diseases of the Ear, Tuesdays and Fridays (with Clinical Instruction at Dispensary, 6 Cambridge Street, Lothian Road, Mondays, Thursdays, and Saturdays, 12 noon),	11 a.m.	Dr Kirk Duncanson (Minto House, Chambers' Street.)
Diseases of the Ear, Mondays and Thursdays,	4 p.m.	Dr P. M'Bride (Surgeons' Hall.)
Vaccination, Wednesdays and Saturdays) (Six Weeks' Course),	12 noon.	Dr Husband (Royal Dispensary.)
Diseases of Children, Mondays and Thursdays (with Clinical Instruction daily)	10 a.m.	Dr James Andrew (Sick Children's Hospital.)
Diseases of Children, Mondays and Thursdays (with Clinical Instruction at Sick Children's Hospital, Out-patients' Room, Tuesdays, Thursdays, and Saturdays), at 11.30 a.m.,	3 p.m.	Dr James Carmichael (Minto House, Chambers' Street.)
Insanity, Mondays and Thursdays (with practical Instruction in Asylum Wards),	2 p.m.	Dr J. Batty Tuke (Surgeons' Hall.)
Diseases of the Skin, Tues. Thurs. and Fri.) (with Clinical Instruction at Royal Dispensary, West Richmond Street),	3 p.m.	Dr Allan Jamieson, (Minto House, Chambers' Street.)
Operative & Practical Surgery,	4 p.m.	Dr P. Heron Watson (Surgeons' Hall.)
Surgical Anatomy & Operative Surgery,	4 p.m	Mr Chiene (Minto House, Chambers' Street.)
Practical Surgery,	4 p.m.	Mr Duncan (Park Place.)
Operative Surgery & Surgical Anatomy,	4 p.m.	Dr A. G. Miller (Park Place.)
Practical Midwifery with Clinical Instruction,		Dr Keiller (Royal Maternity Hospital.)
Clinical Gynæcology, daily at 11 a.m. at the Home for Women, and at 5 p.m. on Mondays and Thursdays at Western Dispensary,		Dr Haliday Croom (Minto House, Chambers' Street.
Clinical Midwifery, at 9.30 a.m. daily, at Royal Maternity Hospital during Autumn,		
Practical Midwifery with Clinical Instruction,		Dr Charles Bell (20 Marshall Street)

WINTER SESSION, 1882-83.

On 2nd October the Practical Anatomy Rooms and Chemical Laboratories will be opened. *On 23rd October* the Inaugural Address will be delivered at Eleven o'clock. *On 24th October* the Lectures will be commenced.

Anatomy,	Practical Anatomy,	9 a.m. till 4 p.m.	Mr J. Symington (Minto House, Chambers' St.)
	Course of Lectures,	1 p.m.	
	Course of Demonstrations,	4 p.m.	
Anatomy,	Practical Anatomy,	9 a.m. till 4 p.m.	Mr Charles W. Cathcart (Surgeons' Hall.)
	Course of Lectures,	1 p.m.	
	Course of Demonstrations,	4 p.m.	
Chemistry,	Lectures,	10 a.m.	Dr Stevenson Macadam (Surgeons' Hall.)
	Practical Chemistry, Analytical Chemistry,	9 a.m. till 5 p.m.	
Chemistry,	Lectures,	10 a.m.	Mr J. Falconer King (Minto House, Chambers' Street.)
	Practical Chemistry, Analytical Chemistry,	9 a.m. till 5 p.m.	
Chemistry,	Practical Chemistry, Analytical Chemistry,	9 a.m. till 5 p.m.	Mr Ivison Macadam (Surgeons' Hall.)
Chemistry,	Lectures,	10 a.m.	Dr Drinkwater (20 Marshall Street.)
	Practical Chemistry, Analytical Chemistry,	9 a.m. till 5 p.m.	
Chemistry,	Lectures,	10 a.m.	Mr J. V. Buchanan (11 Nicolson Square.)
	Practical Chemistry, Analytical Chemistry,	9 a.m. till 5 p.m.	
Practice of Physic,		9 a.m.	Dr John Wyllie (Minto House, Chambers' St.)
Practice of Physic,		9 a.m.	Dr J. O. Affleck (Surgeons' Hall.)
Practice of Physic,		9 a.m.	Dr Byrom Bramwell (Park Place.)
Pathology and Morbid Anatomy,		9 a.m.	Dr Bryan Chas. Waller (Minto Ho., Chambers' St.)
General Pathology,		9 a.m.	Dr J. B. Buist (Surgeons' Hall).

Surgery,	10 a.m.	Dr P. Heron Watson (Surgeons' Hall.)
Surgery,	10 a.m.	Mr Chiene (Minto House, Chambers' Street).
Surgery,	10 a.m.	Mr Duncan (Park Place.)
Surgery,	10 a.m.	Dr A. G. Miller (Park Place.)
Midwifery and Diseases of Women and Children,	11 a.m.	Dr Angus Macdonald (Minto Ho.,Chambers' St.)
Midwifery and Diseases of Women and Children,	11 a.m.	Dr Charles Bell (20 Marshall Street.)
Institutes of Medicine,	11 a.m.	Dr James (Surgeons' Hall)
Institutes of Medicine,	11 a.m.	Mr James Hunter (Minto House, Chambers' St.)
Royal Infirmary,	12 noon.	
Clinical Medicine, Tuesdays and Fridays,	12 noon.	Drs Claud Muirhead, Brakenridge, and Wyllie. Dr Angus Macdonald (*For Diseases of Women*) (Royal Infirmary.)
,, ,, Tutorial Class for Physical Diagnosis,*		
Clinical Surgery, Mondays and Thursdays,	12 noon.	Mr Joseph Bell (Royal Infirmary.)
,, ,, Tutorial Class for Practical Surgery,*		
Medical Jurisprudence and Public Health,	2 p.m.	Dr Littlejohn (Surgeons' Hall.)
Materia Medica and Therapeutics,	2 p.m.	Dr Francis W. Moinet (Surgeons' Hall.)
Materia Medica and Therapeutics,	2 p.m.	Dr William Craig (Minto
Practical Materia Medica, including Practical Pharmacy,	3 p.m.	House, Chambers' Street.)
Natural History—Zoology and Comparative Anatomy—Thrice Weekly	3 p.m.	Dr Andrew Wilson (Surgeons' Hall.)
Diseases of the Ear, Fridays (with Clinical Instruction at Dispensary, 6 Cambridge Street, Lothian Road, Mon., Thurs., and Sat., 12 noon.)	4 p.m.	Dr Kirk Duncanson (Minto Ho.,Chambers' St.)
Diseases of the Eye, Tuesdays and Thursdays, (with Clinical Instruction at Cowgatehead Dispensary, on Mondays and Thursdays at 7 p.m.,	4 p.m.	Dr John Robertson (MintoHo.,Chambers'St.)
Vaccination, 6 Weeks' Course, commencing Nov.,	.	Dr Husband (Royal Dispensary.)
Diseases of Children—Clinical Instruction daily,	.	Dr James Andrew (Sick Children's Hospital.)
Diseases of Children, Tuesdays, Thursdays, and Saturdays,(Out-patients' Room),	11.30 a.m.	Dr Jas. Carmichael (Sick Children's Hospital.)
Practical Midwifery (with Clinical Instruction during February, March and April),	5 p.m.	Dr Angus Macdonald (Roy. Maternity Hospital.
Practical Gynæcology (with Clinical Instruction at Western Dispensary),	5 p.m.	Dr Halliday Croom (Minto Ho.,Chambers' St.)
Practical Midwifery (with Clinical Instruction),	.	Dr Charles Bell (20 Marshall Street.)
Practical Gynæcology and Obstetrics,	5 p.m.	Dr D. Berry Hart (Park Place).

* Under the superintendence of the Lecturers on Clinical Medicine and Surgery.

Fees.—For a *First* Course of Lectures, £3, 5s.; for a *Second*, £2, 4s.; *Perpetual*, £5, 5s. —To those who have already attended a *First* Course in Edinburgh the *Perpetual* Fee is £2, 4s. Practical Anatomy (Six Months' Course), £3, 3s.; Course of Demonstrations, £2, 2s.; *Perpetual*, £4, 4s. Practical Anatomy, with Course of Demonstrations, £4, 4s. Practical Chemistry, £3, 3s.; Analytical Chemistry, £2 a Month, £5 for Three Months, or £10 for Six Months. Organic Chemistry. Practical Materia Medica, including Practical Pharmacy, Diseases of the Ear, Diseases of Children, and Diseases of the Skin, *each* £2, 2s. Vaccination, £1, 1s. For *SUMMER COURSES* of Clinical Surgery and Clinical Medicine, *each* £2, 4s.; Practical Anatomy, including Anatomical Demonstrations, Operative Surgery, and Medical Anatomy and Physical Diagnosis, *each* £2, 2s.; Insanity, £1, 1s.

The *minimum cost* of the Education in this School of Medicine for the **Double Qualification** of Physician and Surgeon from the **Royal Colleges of Physicians and Surgeons**, including the Fees for the Joint Examination, is £95, which is payable by yearly instalments during the period of Study; whilst the *minimum cost* for the **Single Qualification** of either **Physician or Surgeon**, including Fee for Examination, is £85.

The appointment of Resident Physician to the wards in the Royal Infirmary under the care of the Ordinary Physicians is open only to those members of their clinical class who have clerked in their wards for at least six months.

Six Residentships are competed for during the year. Three of these tenable for the following six Winter months are competed for in March, and three for the succeeding six Summer months in July.

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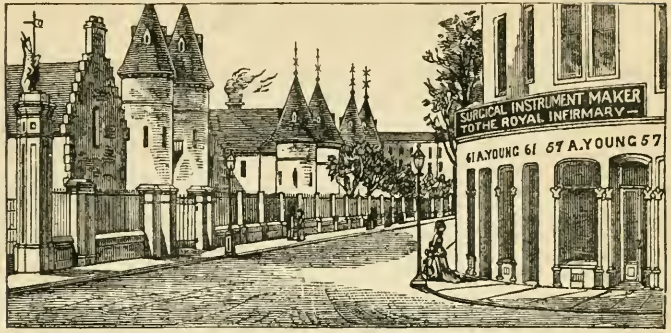

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WILLIAM RITCHIE, D.D., *Secretary.*

DUNSE, 20*th March* 1882.

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I.—**For Young Ladies.** The Edinburgh Educational Institution (Ladies' College), Queen Street. Head Master—DAVID PRYDE, M.A., LL.D.

II.—**For Boys.** George Watson's College, The Meadows and Archibald Place. Head Master—GEORGE OGILVIE, MA., LL.D.

III.—**For Young Ladies.** George Watson's College, George Square. Head Master—ALEXANDER THOMSON.

IV.—**For Boys.** Daniel Stewart's College, The Dean. Head Master—WM. W. DUNLOP, M.A.

V.—**For Boys and Girls.** James Gillespie's Schools, Bruntsfield Links.

In the four first Schools Education of the highest class is provided, and in the last a sound English Education at moderate fees is given.

Upwards of £20,000 are paid yearly for Salaries in these schools, so as to secure Teachers of the highest position.

Numerous Bursaries and other advantages are connected with the Schools.

Copies of the Prospectus, containing full details, will be obtained on application to Mr A. KIRK MACKIE, S.S.C., Secretary, at the undernoted address.

THE MERCHANTS' HALL,
14 HANOVER STREET, EDINBURGH.

PRELIMINARY EXAMINATIONS.

THE REV. W. SKAE, M.A., Teacher of *Latin*, *Greek*, and *Mathematics*, prepares Candidates for the Preliminary *Medical*, *Military*, and *M.A.* Examinations.

Mr S. also receives young Gentlemen as Boarders.

7 ARCHIBALD PLACE.

THE FETTES COLLEGE,

COMELY BANK,

NEAR EDINBURGH.

TRUSTEES.

The RT. HON. JOHN INGLIS of Glencorse, Lord Justice-General.
The HON. BOUVERIE FRANCIS PRIMROSE, C.B.
DAVID ANDERSON of Moredun.
ARCHIBALD CAMPBELL SWINTON of Kimmerghame.
The HON. LORD KINNEAR, Q.C., LL.D.

HEAD-MASTER.

ALEXANDER W. POTTS, M.A., LL.D.,

Late Fellow of St John's College, Cambridge; and for some time one of the Assistant-Masters of Rugby School.

ASSISTANT-MASTERS.

C. C. COTTERILL, M.A., St John's College, Cambridge.
H. E. GOLDSCHMIDT. (French and German.)
W. A. HEARD, M.A., Late Scholar of Trinity College, Oxford.
A. S. FORSTER, M.A., Late Scholar of New College, Oxford.
T. A. ELLIOTT, M.A., Scholar of St John's College, Cambridge (Mathematics and Natural Science.)
J. M. JOHNSON, M.A., Scholar of St John's College, Cambridge (Mathematics and Natural Science.)
C. BRYANS, B.A., Scholar of King's College, Cambridge.
D. W. TANQUERAY, B.A., Scholar of Magdalene College, Cambridge.
P. E. MATHESON, B.A., Fellow of the New College, Oxford.

SINGING.	DRAWING.
JOSEPH GEOGHEGAN.	HERR KROUPA.

GYMNASTICS.
SERGEANT ADAM.

Parents or Guardians will receive full information as to all the College arrangements, and as to the College Scholarships and Exhibitions to Universities, on applying to the Head-Master.

EDINBURGH, *April* 1881.

HIGH SCHOOL OF EDINBURGH.

SESSION 1882-83.

Honorary Patrons.

THE LORD PROVOST, MAGISTRATES, AND COUNCIL OF THE CITY OF EDINBURGH.

Managers of the School.

THE EDINBURGH SCHOOL BOARD.

MASTERS.

RECTOR.—

CLASSICS.
THE RECTOR.

JAMES CRANSTOUN, B.A., LL.D.
THOMAS T. M'LAGAN, M.A., Edinburgh.

ENGLISH.
J. M. ROSS, LL.D., Univ. of Glasgow.
THOMSON WHYTE, M.A., St Andrews.
JAMES GIBSON, M.A., Edinburgh.

MATHEMATICAL DEPARTMENT.
DAVID MUNN, Univ. of Glasgow, F.R.S.E.
J. J. A. BLACK, Univ. of St Andrews.

WRITING AND BOOK-KEEPING.
JAMES ARNOT, M.A., Edinburgh.

FRENCH.
AUGUSTE JULES DUBOURG. — A. N. MEYEROWICZ, *Assistant.*

GERMAN.
ALBERT VON RAVENSBERG.

HINDUSTANI.
JOHN THOMSON, P.H.

DRAWING.
JAMES V. SCOTT.

FENCING, GYMNASTICS, AND DRILL.
Captain ROLAND.

PHYSIOLOGY.
Dr ANDREW WILSON.

JANITOR.—Sergeant-Major WILLIAM ROLLO.

The School re-assembles after the Holidays on Monday, October 2nd.

Copies of the Prospectus may be obtained at the Offices of the School-Board, 25 Castle Street; or from the Janitor, at the School.

Boarders are received by several of the Masters.

See Page 10 of Prospectus.

NATIONAL LIFE ASSURANCE SOCIETY,

FOR MUTUAL ASSURANCE.

HEAD OFFICE:

2 KING WILLIAM STREET, LONDON, E.C.

ESTABLISHED 1830.

DIRECTORS.

President—JOHN CHAS. SALT, Esq.

Vice-President—JOHN BLUNDELL, Esq.

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The Premiums are moderate to begin with, and by the application of Profits, in Class B, are gradually reduced until they are extinguished altogether; a result which may be expected to be attained, on an average, in 20 to 25 years from the time an Assurance is effected; after which the further profits will be applied in making additions to the Sum Assured.

VALUATION BALANCE-SHEET, December 31st, 1880.

Assurance Fund (accumulated solely from Premiums),	£769,555 15 2
Net Liability under Assurance and Annuity Transactions,	434,355 14 2
Surplus available for future Bonus and Expenses,	£335,200 1 0

ASSURANCE FUND,	£800,000
ANNUAL INCOME,	117,000
CLAIMS PAID,	1,570,000
AMOUNT ASSURED,	2,545,000

Full Prospectuses and further information may be obtained on application at the HEAD OFFICE, *or at any of the Society's* AGENCIES.

HENRY JOHN PUCKLE, *Secretary.*

NORTH BRITISH AND MERCANTILE
INSURANCE COMPANY.
Established 1809.

Resources of the Company as at 31st December 1881.

I. SUBSCRIBED CAPITAL—	
Paid-up	£500,000
Uncalled, ...	1,500,000
	£2,000,000
II. FIRE FUND—	
Reserve	£844,577
Premium Reserve . . .	319,551
Balance of Profit and Loss Account,	54,367
	£1,218,495
III. LIFE FUND—	
Accumulated Fund (Life Branch) .	£3,112,590
Do. do. (Annuity Branch)	395,515
	£3,508,105
IV. REVENUE for Year 1881—	
Nett Life Premiums and Interest .	£462,824
Annuity Premiums and Interest, .	15,877
	£478,701
Nett Fire Premiums and Interest .	£1,024,384
	£1,503,085

LIFE DEPARTMENT.

I.—Life Assurance Branch.

The LIFE Funds are specially invested to meet the obligations of that Department.

The large proportion of NINE-TENTHS of the PROFITS is divided among the Policy-holders on the Participating Scale every five years, and is allocated not only on the sums assured, but also on the previous additions.

The last Division of Profits was made as at 31st December 1880, when there was declared a Bonus of **£1, 7s. 6d. per cent. per annum.**

If taken as a per centage on the original sums assured, this Bonus is equivalent to an addition of from **£2, 11s. 4d.** per cent. per annum on the oldest Policies, to **£1, 7s. 6d.** per cent. on those now for the first time entitled to participate.

II.—Annuity Branch.

ANNUITIES, Immediate, Contingent, or Deferred, are granted on favourable terms.

FIRE DEPARTMENT.

The Company INSURES against FIRE almost every description of Property, at Home or Abroad, at the lowest rates of Premium corresponding to the Risk.

The Fire Policies of the Company now extend to cover loss occasioned by Lightning to the Property insured, whether set on fire thereby or not.

Every Information may be had at the Chief Offices, Branches, or Agencies.

CHIEF OFFICES:

EDINBURGH, . . . 64 PRINCES STREET.
LONDON, ... 61 THREADNEEDLE STREET.

Founded 1805. The Oldest Scottish Insurance Institution.

CALEDONIAN INSURANCE COMPANY.

Head Office—19 GEORGE STREET, EDINBURGH.

ORDINARY DIRECTORS.

A. S. Douglas, Esq., W.S.
R. Stewart, Esq. of Ingliston.
A. A. Maconochie Welwood, Esq. of Meadowbank and Garvock.
J. Wm. Young, Esq., W.S.
The Hon. E. C. B. Elphinstone.
W. S. Fraser, Esq., W.S.
P. H. Maclaren, Esq., M.D.
Thomas Alex. Hog, Esq. of Newliston.
Patrick Stirling, Esq., younger of Kippendavie.
Sir George Warrender of Lochend, Bart.
George Readman, Esq.
John Turnbull, Esq. of Abbey St Bathans.

Manager and Actuary—D. Deuchar, F.I.A., F.F.A.
Secretary—D. J. Surenne, F.F.A.
Fire Superintendent—Jas. Cowan.
Solicitor—R. B. Ranken, W.S.
Physician—F. W. Moinet, M.D.
Auditors—James Jobson Dickson, C.A., and James Rhind Carphin, C.A.

FIRE INSURANCES.

Insurances against loss by Fire are granted on the most favourable terms. The Security is unsurpassed, the proportionate amount of Fire Reserve Funds as compared with the Premium Income being greatly larger than in the case of most other offices. Losses by Lightning are admitted.

LIFE ASSURANCE ON UNUSUALLY FAVOURABLE TERMS.

CLASS A 1. Moderate Premiums, with Early Bonuses, which may be applied either to increase the sum assured or to make the Policy *payable during life.*

CLASSES A 2 and B. Lowest Premiums, with special Bonus advantages to persons attaining old age.

NEW AND SELF-ACTING NON-FORFEITABLE SYSTEM. Under this System the Surrender Value is applied to pay overdue premiums, thus preventing the accidental forfeiture of any valuable policy. Although this plan is new in Great Britain, a similar plan has for some years been carried on with much success in the Australian Colonies. The *Australasian Insurance and Banking Record* concludes an article on the Non-forfeitable System in the following terms :—

"It is to the credit of the CALEDONIAN that it should be the first to introduce this liberal feature into practice in Great Britain. As the precursor of a new and better state of things in the Insurance world there, it deserves, as we trust it will find, its reward in a large accession of business."

New Life Assurances in 7 years ending 31st December 1874, £856,399
New Life Assurances in 7 years ending 31st December 1881, £1,780,930

The Fire and Life Claims paid exceed Two Millions Sterling.

LONDON—82 KING WILLIAM STREET, E.C., AND 9 CRAIG'S COURT, S.W.

GLASGOW—64 ST VINCENT STREET.
DUNDEE—37 ALBERT SQUARE.
DUBLIN—31 DAME STREET.
LIVERPOOL—F12 EXCHANGE.
MANCHESTER—24 BOOTH STREET.
BIRMINGHAM—1 BENNET'S HILL.
BRISTOL—ST STEPHEN'S CHAMBERS, No. 1, BALDWIN STREET.

BY SPECIAL APPOINTMENT,

ROBEMAKERS

TO THE UNIVERSITY.

ROBES

FOR ALL

DEGREES

CHRISTIE AND

KILPATRICK,

CLOTHIERS AND OUTFITTERS,

104 SOUTH BRIDGE,

EDINBURGH.